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EASTERN MONTANA AREAWIDE HEALTH PLAN

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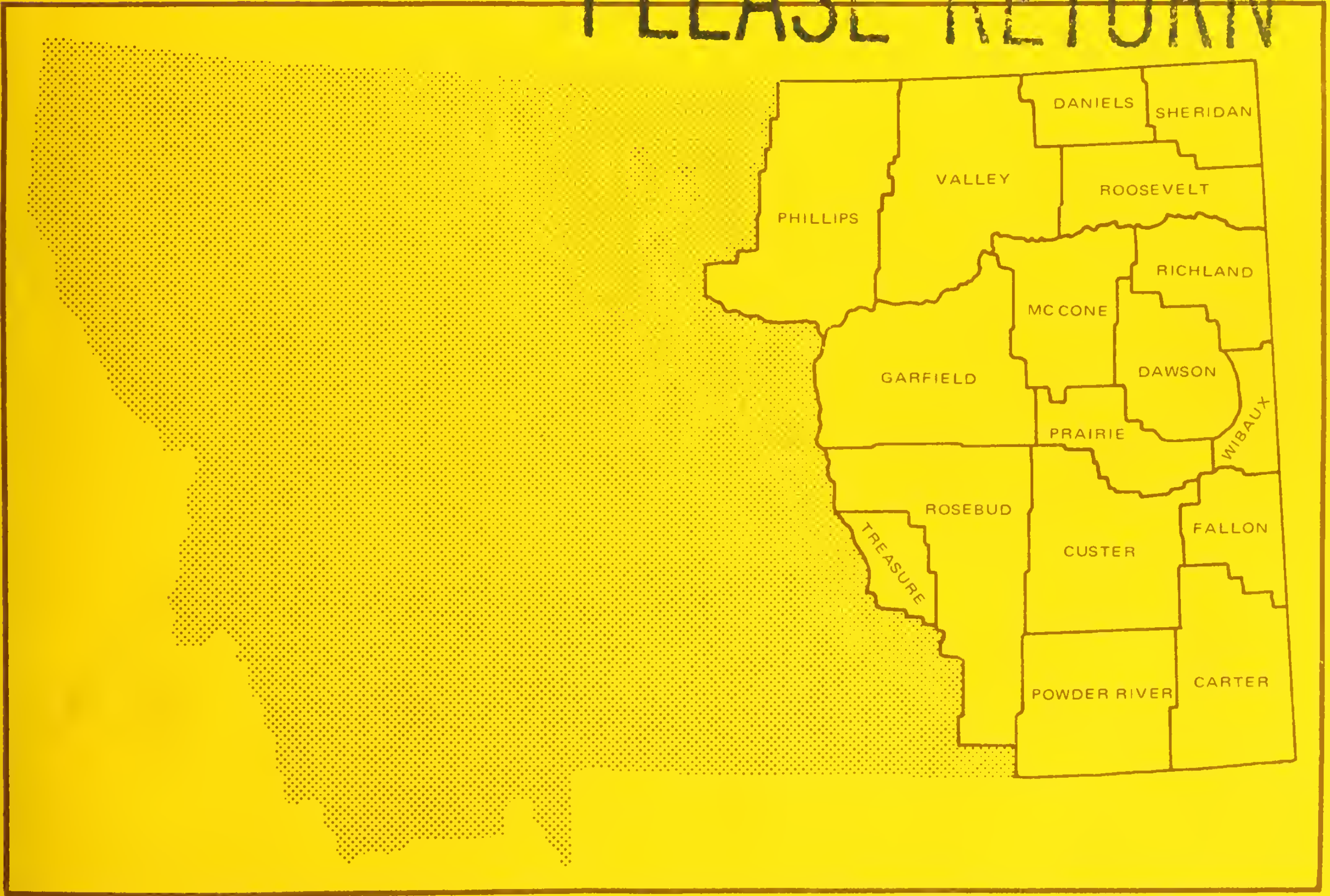

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Areawide Comprehensive Health Planning Council P. O. Box
388 - Sidney, Montana 59270 - Tele: (406) 482-3374

May 1, 1975

TO: CITIZENS OF EASTERN MONTANA AND INTERESTED READERS

The following document is the first edition of the Eastern Montana Areawide Health Plan. The Economic Development Association of Eastern Montana, the designated Areawide Comprehensive Health Planning Agency, has been responsible for its development through a contract with the Department of Health and Environmental Sciences.

This Plan was developed in Eastern Montana by a resident staff and with the input of health care providers, three (3) district facilities committees, a planning committee, the executive committee and the many, many interested and concerned residents of Eastern Montana who provided information and suggestions that are a part of this Plan.

It is hoped that this Plan will serve as a base for the regions health care plans for the future and that it will provide some common goals for united efforts. We also hope that it will be used, modified and changed as times, needs, and conditions warrant and that it will remain a reflection of the kind of health care that the residents of Eastern Montana view as desirable and acceptable.

I sincerely hope that all concerned use this Plan and that all segments of our population continue to add to this document so it will remain a viable Plan.

Sincerely,

Robert R Bell

Dr. Robert R. Bell, D.V.M.
President

PLEASE RETURN

"Combined Efforts For A Better Eastern Montana"

EASTERN MONTANA

AREAWIDE HEALTH PLAN

May, 1975

ECONOMIC DEVELOPMENT ASSOCIATION OF EASTERN MONTANA
AREAWIDE COMPREHENSIVE HEALTH PLANNING AGENCY
SIDNEY, MONTANA

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FORWARD

The Economic Development Association of Eastern Montana would like to thank the numerous groups, organizations and individuals who have helped in the development of the Eastern Montana Areawide Health Plan.

EDAEM would like to extend a special thank you to the State Comprehensive Health Planning Division, Montana Department of Health and Environmental Sciences, and to John Short & Associates, Inc., Consultants, Salt Lake City, Utah, for their assistance in compiling this document.

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INTRODUCTION

The following pages represent the first edition of the Eastern Montana Areawide Health Plan. This Plan will be a working document, in that it will be amended and revised according to the changing needs, resources, etc., of the area.

It is the general intent of this Plan and future updates to:

1. Assist individual institutions, agencies, and community groups to improve their planning capabilities, help them make use of planning tools, stimulate them to use sound planning principles and methodologies, encourage them to explore and to consider relevant alternatives and to plan for themselves within a framework of total community planning in appropriate relationship with other institutions.

2. Articulate a statement of community health goals and priorities and evaluate progress toward meeting them through compilation and publication of indexes measuring health status, accessibility of health services, and health service costs of various components of the community's health care system.

3. Assist in review and comment on major capital and program proposals of individual institutions and agencies in terms of their conformity to demonstrated community need, their financial

feasibility, their consistency with community priorities, and the degree to which they were developed in accordance with sound planning principles.

4. Provide a rational basis for health related decisionmaking and to assist decisionmakers, including State planning agencies, the Federal Government and public as well as private agencies in making the most appropriate use of resources within the community.

The major sections of the Plan are: The Setting, The Future, The Health Care System, Cost and Financing of Health Care System, and Implementation of Plan. The Health Care System section is broken down into categories of Manpower, Facilities and Services. Each section is presented in the following manner: Inventory--what is present now; Standards and/or Goals--standards and goals that the Health Planning Council sets for a particular item; Immediate Needs--what is needed now based on the standards and goals; Long Term Objectives--what is proposed for the next ten years.

The Implementation section presents the Areawide CHP Agency's strategy for implementing the Eastern Montana Areawide Health Plan. A work program is listed for the Manpower, Facilities and Services sections respectively, identifying the group(s), organization(s) or agency(s) who should be responsible for carrying out the various objectives of the Plan. Hopefully, this Areawide Health Plan will be used as a yardstick to judge proposed alternatives to the existing health care delivery system. Thus, in effect, this Plan presents a picture of the Region's future health system.

There are a total of five independent Areawide Comprehensive Health Planning Agencies blanketing Montana, with the Economic Development Association of Eastern Montana (EDAEM) being one of these. There is also a State Division of Comprehensive Health Planning which completed a Montana State Plan for Health in August 1974.

Health planning at the area level resembles that at the State level in its focus on all the people and their health needs and in its attention to circumstances and actions that can affect their health. The difference between the two lies chiefly in the subjects that planning recommendations and decisions deal with. At the State level, these are chiefly matters of broad policy that affect the whole State or at least certain whole classes of institutions, activities or resources. At the area level, they are more often specific to particular institutions, activities or resources. All five Montana Areawide CHP Agencies completed plans appropriate to their particular regions as of May 1975.

The Eastern Montana Areawide Health Plan has been written as carefully and accurately as possible with the resources available. There are some areas of health care that have been left out completely and others that are discussed only briefly. This does not mean that those topics which have been omitted are less important than those that have been included. The committees had to make certain decisions regarding specific areas that would or would not be incorporated into the Plan, the reason for this being twofold: One, prioritization of items to be addressed in this Plan, and two, the limited time and space available.

As was previously stated, this Plan is a working document, thus future updates and revisions will attempt to incorporate those areas of health care that are omitted from this first edition.

Copies of the completed Plan will be sent to the Governor and other key decision makers in Montana with the hope that they will use the Plan in making health policy decisions. Other groups and individuals who will receive final copies include: EDAEM's health committees, public libraries in Eastern Montana, Montana college and university libraries, County Commissioners, Eastern Montana hospitals and nursing homes, chairpersons of Eastern Montana Hospital Boards, public health departments, Old West Regional Commission (OWRC) project nurses, Chambers of Commerce, and Montana Areawide CHP Agencies.

In all of its activities, the CHP Agency is an advocate of the public interest in health. It provides the setting and means for consumer-provider-government participation in rational decision-making, which takes place in the full light of the opinions of all who are interested, both professional and non-professional.

The development of the Eastern Montana Areawide Health Plan consisted of two rough drafts (see Appendix A for rough draft dissemination).

In addition to EDAEM's health committees, the first draft was set to a majority of the providers in Eastern Montana for their review and comments. Public meetings were held in the three respective planning districts to provide a means for public review of the first draft.

The second draft was sent not only to the health committees and Eastern Montana providers, but to all Eastern Montana County Commissioner offices, city halls, public libraries and county extension offices where the draft was made available to anyone who wished to comment on the Plan. Notices were placed in all of the county newspapers and aired on area radio and television stations publicizing the availability and location of the drafts. Public meetings were again held in the respective districts to receive additional public input into the Plan.

All comments were seriously considered by EDAEM's committees and staff.

STATEMENT OF AUTHORITY

The Economic Development Association of Eastern Montana was organized in September of 1970 comprising the following Montana counties: Phillips, Valley, Daniels, Sheridan, Roosevelt, Petroleum, Garfield, McCone, Richland, Dawson, Prairie, Wibaux, Treasure, Rosebud, Custer, Fallon, Powder River and Carter.

It is a grass roots voluntary organization composed of representatives from each of the eighteen Eastern Montana counties and receives considerable support from community organizations, local government, State and Federal agencies. The need for combining the efforts of eighteen counties became apparent following the 1970 population census which indicated a loss within the area of over 13,000 people during the sixties. Through the Association, the counties are working together to develop action programs that will make the many small towns and rural communities in Eastern Montana a better place in which to live and to earn a living.

In 1966, Congress passed Public Law 89-749 authorizing formula grants to states for comprehensive health planning and providing for the designation of state and areawide agencies to administer the planning.

In 1969, the Montana Legislature amended Chapter 41, Title 69, of the Revised Codes of Montana, 1947, to include a new section establishing the State Department of Health as the sole and official State agency to administer the State program for comprehensive planning and to prepare a plan for comprehensive State health planning. The Division of Comprehensive Health Planning was created within the State Department of Health and Environmental Sciences to carry out this responsibility.

The Economic Development Association of Eastern Montana (EDAEM) was designated the Eastern Montana Areawide Comprehensive Health Planning Agency in August, 1973 through a contract with the Montana State Department of Health and Environmental Sciences. The boundaries of this Areawide, as well as the other four Areawides in Montana, correspond with the Governor's five administrative planning areas used by state agencies (see Appendix B). Petroleum County is the only county within EDAEM which is not included in the Eastern Areawide CHP boundaries.

There are twelve multi-county planning districts in Montana, three of which are in Eastern Montana: District 1, comprised of the northern counties (Phillips, Valley, Daniels, Sheridan and Roosevelt); District 2, comprised of the central counties (Garfield, McCone, Richland, Dawson, Prairie and Wibaux); and District 3, comprised of the southern counties (Rosebud, Custer, Fallon, Treasure, Powder River and Carter). These districts will be referred to as 1, 2 and 3.

I

The Setting

I. THE SETTING

This section discusses the geographic, economic and demographic characteristics of the target area for which this Health Plan is being designed. Geographic considerations, in terms of political boundaries, square miles, terrain, climate, etc., are detailed first. An economic description follows, focusing on the primary employment sources, current unemployment rates and the income levels in Eastern Montana. Thirdly, a demographic analysis is presented, with its major emphasis being on the historical population of the Region.

A. Geographic Considerations

Eastern Montana is a seventeen county Region containing 48,588 square miles and encompassing the entire eastern third of Montana. The area has been designated as the Governor's Administrative Region I, and lies within the planning territory of the Economic Development Association of Eastern Montana.

For health planning purposes, Eastern Montana is divided into twelve service areas by the State Department of Health and Environmental Sciences. These service areas are single counties or groups of counties which have been "established on the basis of socio-economic factors, trade areas, transportation systems, including time-distance factors, geographic features, and existing patterns of medical care."[1] Map I displays the configuration of

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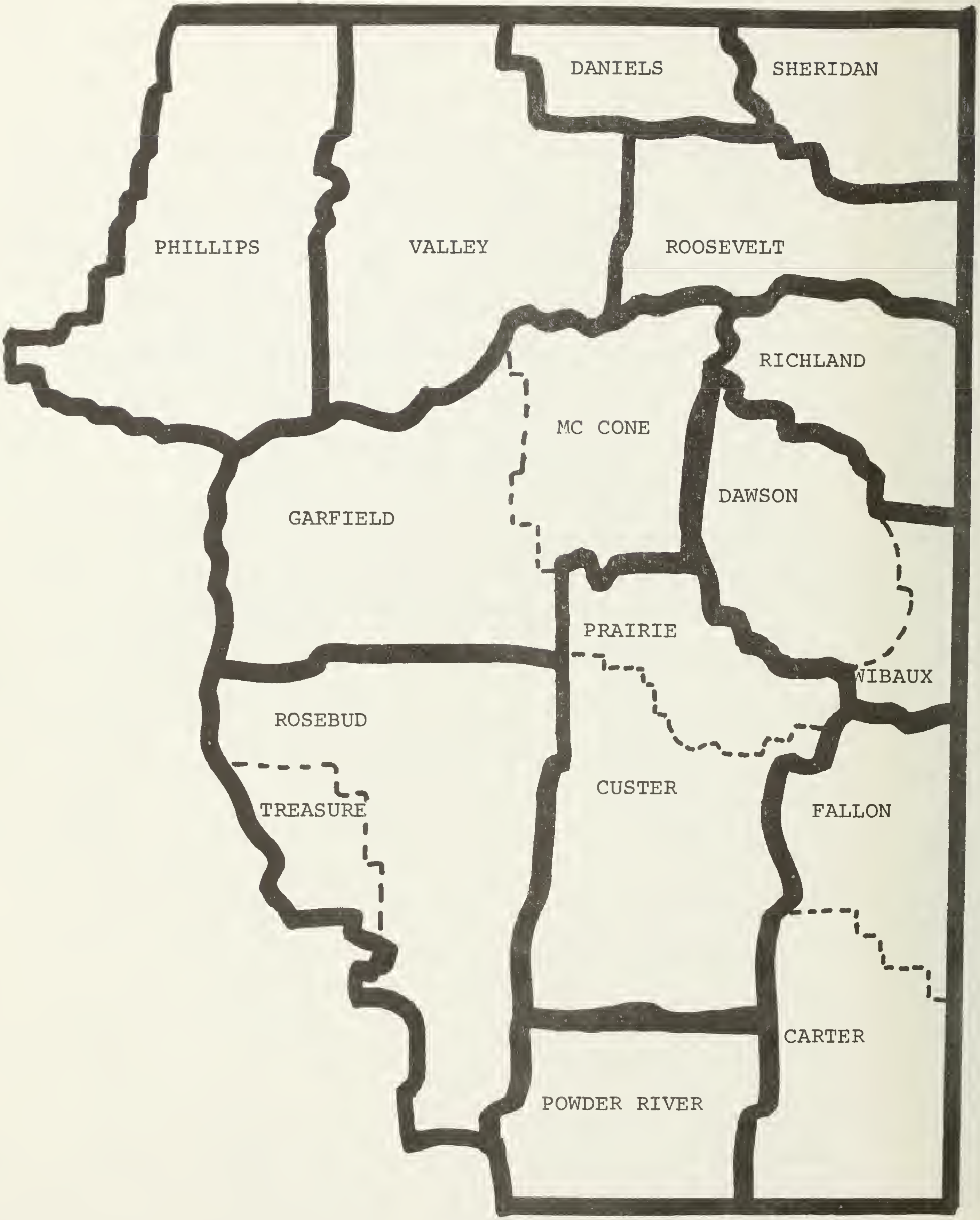
[1] Sources are listed at the end of this section.



MAP I

EASTERN MONTANA SERVICE AREAS

these service areas within Eastern Montana, and Table 1 indicates the number of square miles, the 1973 population and the population densities of each. These population figures are the provisional estimates published by the Bureau of the Census and may not adequately reflect recent population growth in some Eastern Montana counties.

TABLE 1
POPULATION DENSITIES OF EASTERN MONTANA SERVICE AREAS

Service Areas	Square Miles	Population (1973)	Population per Square Mile
Custer/Prairie	5,514	13,300	2.412
Daniels	1,443	3,100	2.148
Dawson/Wibaux	3,271	12,300	3.760
Fallon/Carter	4,946	5,600	1.132
Garfield/McCone	7,464	4,600	.616
Phillips	5,287	5,200	.984
Powder River	3,298	2,100	.637
Richland	2,103	9,700	4.612
Roosevelt	2,399	10,000	4.168
Rosebud/Treasure	6,039	7,700	1.275
Sheridan	1,720	5,500	3.198
Valley	5,104	13,300	2.606
REGION I TOTAL	48,588	92,400	1.902
MONTANA			4.719

Source: Montana Data Book, Montana Department of Planning and Economic Development, 1970.

Eighty percent of the land in Eastern Montana is in agricultural use, most of which is dominated by dry range land. Only one percent of the agricultural land is presently irrigated, although potential water resource developments may alter this considerably. There are approximately 900 square miles of land classified as forest in Eastern Montana.[2]

Further investigation into the climatic conditions and the physical land characteristics of the area explains this predominance of dry range land in Eastern Montana. Much of the surface area is described as moderately sloping and hilly land, accompanied by a large amount of rough and bad lands. Precipitation averages only about 13 inches per year, resulting in a semi-arid climate. The growing season is relatively short, with approximately 120 frost-free days during the summer months. July temperatures (warmest month) average between 66° and 72°. Winter months are often characterized by severe sub-zero temperatures and heavy snows which hamper transportation in and from the area.

As indicated in Table I, Eastern Montana is very sparsely populated, with less than two persons per square mile in 1973. This compares to almost five persons per square mile for the State of Montana in 1973 and 57.5 persons per square mile in the United States (1970).

Because of the vast area, the low population density and the long distances between Eastern Montana communities, transportation is an important concern within the region. While a highway network serves most of the counties, public transportation is limited. Only five service areas (Valley, Richland, Dawson/Wibaux, Custer/Prairie and Roosevelt) have commercial airline services. Commercial railroad transportation is available in half of the service areas. Roosevelt, Valley, Dawson/Wibaux, Phillips, Custer/Prairie and Rosebud/Treasure have railroad service. Four bus lines service two-thirds of the service areas: those areas not included are Daniels, Powder River, Garfield/McCone and Carter/Fallon.

B. Economic Setting

The Eastern Montana economy has historically relied on agriculture as a major industry. However, recent changes in agricultural technology have altered its employment potential--far fewer people are now employed in agriculture as compared to a decade ago. In 1960 an estimated 11,142 persons, or one-third of the area's employment, was engaged in agricultural endeavors. By 1970 this figure had decreased to 8,894, or a 20% decline in ten years. Table 2 indicates this change as compared to changes in non-agricultural employment in Eastern Montana.

TABLE 2
EASTERN MONTANA
EMPLOYMENT BY INDUSTRY 1960 AND 1970

	1960	1970	% Change
Total Employment	35,223	33,833	-3.9
Agriculture	11,142	8,894	-20.2
Non-Agriculture	24,081	24,939	+3.6
Mining	558	927	+66.1
Construction	2,675	1,859	-30.5
Manufacturing	1,037	1,459	+40.7
Transportation Communication & Utilities	2,984	2,419	-18.9
Trade	6,519	6,771	+3.9
Finance, Insurance & Real Estate	745	975	+30.9
Services & Others	9,563	10,529	+10.1

Source: U.S. Bureau of the Census, 1960 and 1970

Note: The 1970 figures have been adjusted to include 14 and 15-year-olds so that the data can be compared to 1960.

Viewing these employment characteristics from the perspective of the regional economy, it appears that formerly undeveloped resources in the area are beginning to be utilized. Mineral extraction, dominated by coal mining, experienced the most significant employment change during the decade with a 66.1% increase. Manufacturing increased employment by 40.7%, and the financial sector, including insurance and real estate, expanded personnel by 30.9%. Trade and services, which include the tourism and recreation industries of Eastern Montana, indicated increases in employment of 3.9% and 10.1% respectively for the ten-year period.

The Montana Employment Service reported that in December 1974, 1,800 of the 40,000 persons in Eastern Montana's labor force were without jobs.[3] This translates into a 4.5% unemployment rate for the Region, which compares favorably with the State's 7.3%. In December 1973, Eastern Montana had an unemployment rate of 5.2% and Montana, 6.5%. It appears that Region I has improved its employment position while the State has, as a whole, experienced increased unemployment as compared to the previous year.

Income levels in Eastern Montana were less than those recorded for the State as a whole in the 1970 Census. The per capita income for Region I averaged $2,626 as compared to $2,712 for the State.

The Region's median family income was $8,079 or $433 less than Montana's median of $8,512.

Of the 23,072 families in Eastern Montana in 1970, 2,770 or 12% reported incomes below the poverty level. The State's percentage of poverty level families was 10.4%. 26.5% of Region I's population over age 65 had poverty level incomes which parallels with the State's experience of 26.0%.

C. Demographic Characteristics

From 1960 to 1970, Eastern Montana's population declined from 107,000 to just over 93,000. This decrease is attributed primarily to a large scale out-migration during that decade. Migration statistics indicate that 27,000 more people left the 17-county area than entered it in the 1960-1970 period. This translates into a migration rate of -25.4%, or roughly one out of every four persons living in Eastern Montana in 1960 left by 1970.[4]

A significant portion of this out-migration was generated by the closure of the Glasgow Air Force Base in Valley County. The 1960 population at the facility was 6,400, which grew rapidly to a peak of 8,500 persons in 1964. However, because of the Department of Defense decision to close the base in 1968, approximately 7,500 persons left by the end of the decade, resulting in large increases in the area's unemployment rates.[5]

Another principal cause of this out-migration was due to changes in agricultural technology. As farming techniques became more sophisticated, and as innovative, labor-saving equipment was introduced during the 60's, the smaller farms were combined into larger, more efficient operations, requiring both fewer farm proprietors and less agricultural manpower.

Recall from Table 2 that there were 2,248 fewer persons employed in agriculture in 1970 as compared to 1960. As the agricultural employment declined, and people migrated out of the Region seeking jobs, the demand for agricultural associated goods and services also diminished, impacting negatively on employment opportunities and further stimulating the out-migration trends.

Dampening the effect of this out-migration somewhat was the natural rate of increase of the remaining population. There were approximately 13,500 more births than deaths recorded in this area from 1960 to 1970, or a natural increase of 12.6%. Combining this natural increase with the out-migration figure results in an overall net population decrease in Eastern Montana of 12.8%, or loss of over 13,500 people between 1960 and 1970.

This rapid decline in population appears to have stabilized somewhat between 1970 to 1973. In this three year period the area's population declined by only 800 persons, or a .9% decrease. This is directly attributable to a decrease in out-migration from the area. Estimates of out-migration for these three years indicate a rate of -3.1% for the combined Eastern Montana counties. If this is adjusted to represent a ten-year period, the rate for 1970 to 1980 would be -11.9%, which is considerably lower than the out-migration of -25.4% recorded for the previous decade.

Note that the rate of natural increase has also slowed, however. This can be attributed to a rapid decline in birth rates. In Montana, as a whole, birth rates have dropped from 25.9/1,000 population in 1960 to 15.9/1,000 population in 1972. Death rates have remained almost constant in this time period at about 9.5/1,000 population.[6] This has caused a decline in the rate of natural increase, since less people are being born, while the mortality rate has not changed.

Table 3 displays estimates of populations in Eastern Montana from 1960 to 1973, and indicates the number of persons 65 years and older for selected years. Graph I represents the historical population trend for Eastern Montana, based on estimates for selected years between 1960 and 1973.

A significant result of the out-migration in Eastern Montana is its effect on the age characteristics of the population. As indicated in Table 3, that percentage of the population 65 years and older has grown from 9.7% in 1960 to 10.8% in 1973. This is explained primarily in that the out-migration was heavily weighted by younger people, whereas the older residents tended to stay in the area. Eastern Montana counties, on the average, lost 53% of their 1970 population ages 20 to 24. This figure declined to 16% in the 35 to 44 age group; only 7% of the 65-69 cohort migrated out of the Region during the decade.[7]

Of Eastern Montana's non-white population of 6,700, 85% are American Indians. The 1970 Census indicates that some 5,600 Indians resided in the seventeen counties, primarily in the Fort Peck, Fort Belknap and Northern Cheyenne Reservations. Indians represented roughly 6% of Eastern Montana's 1970 population.*

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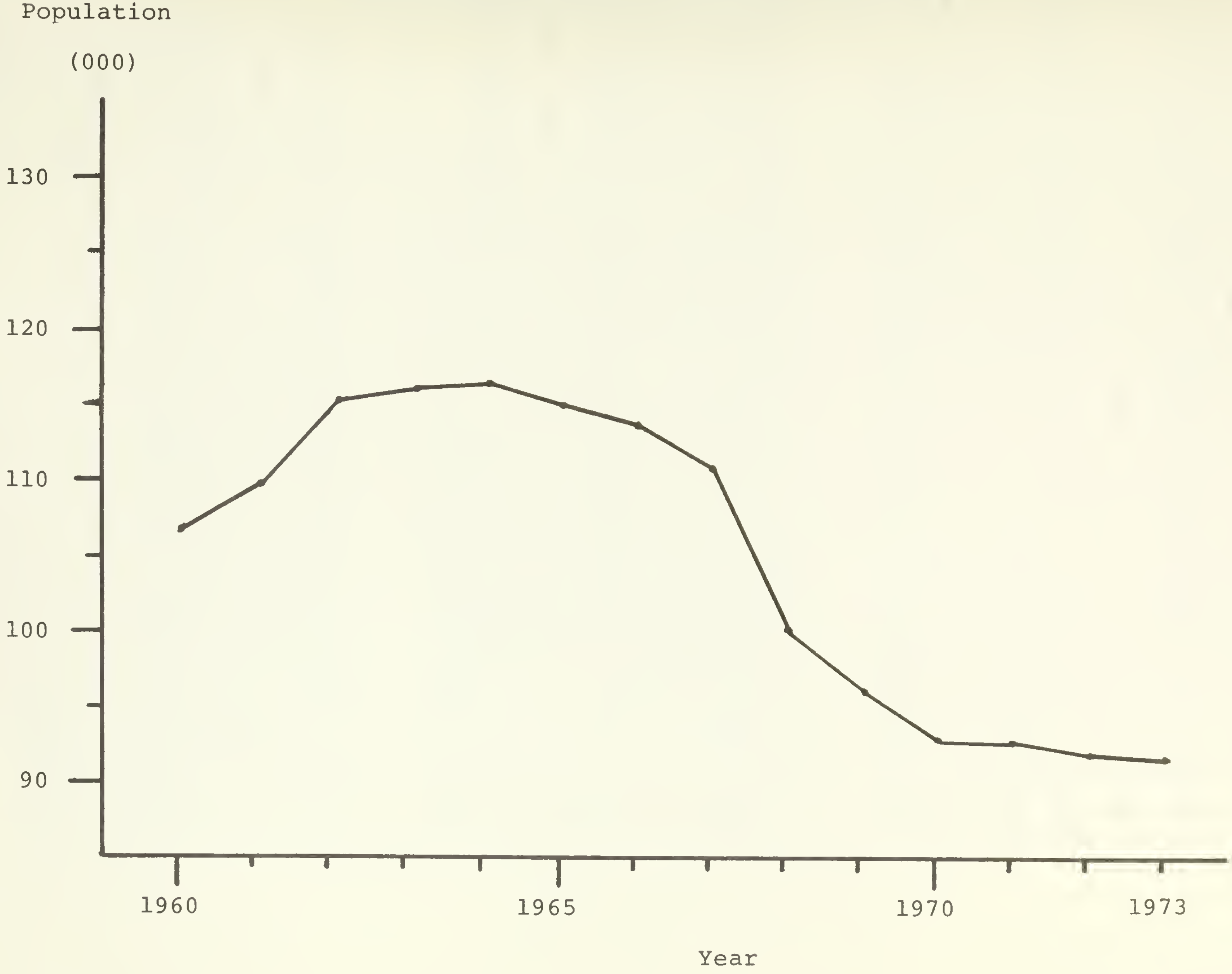
* The health care system as it pertains to the Indian population is addressed in Appendix C of the Health Plan.

TABLE 3
EASTERN MONTANA POPULATION ESTIMATES
1960 TO 1973

YEAR	POPULATION	POPULATION 65 YEARS AND OLDER	PERCENT 65 YEARS AND OLDER
1960	106,921	10,410	9.7
1962	115,200		
1963	115,800		
1964	116,400		
1965	115,000	10,782	9.4
1966	113,700		
1967	111,110		
1968	100,150		
1969	96,700	9,650	10.0
1970	93,221	9,856	10.6
1971	93,200	10,025	10.8
1972	92,500	10,000	10.8
1973	92,400	10,000	10.8

Sources:
1. U. S. Bureau of the Census.
2. Montana Department of Intergovernmental Relations, Information Systems Bureau.

GRAPH I
HISTORIC POPULATION OF EASTERN MONTANA



D. Summary

Eastern Montana is a large, sparsely populated and relatively isolated planning Region (Governor's Administrative Region I) which encompasses seventeen counties and covers the entire eastern third of the State of Montana. For health planning purposes, the Region has been disaggregated into twelve service areas made up of the various counties. The Region's land surface is mostly hilly and bad lands and is classified as predominantly dry rangeland. Transportation throughout the area is provided chiefly by a network of primary and secondary highways; however, air, railroad and bus services are available in several counties.

Although Eastern Montana's economy has historically relied on agriculture, technological changes have diminished the employment opportunities formerly associated with the industry. More recent developments in the Region have evolved around the mining industry, especially coal extraction. Incomes in Eastern Montana were generally lower than those recorded for the State as a whole. Current unemployment rates in this Region compare favorably with the Statewide experience.

Between 1960 and 1970 Eastern Montana's population declined from 107,000 to 93,000 people or a 12.8% decline. This is attributed to a large scale out-migration generated by the lack of employment opportunities in the Region. The closure of the Glasgow Air Force Base and changes in agricultural technology were of particular significance in this out-migration.

A noticeable result of the out-migration was the overall aging of the population--there was a higher proportion of people 65 and over in 1970 as compared to the decade before. It appears that the out-migration has slowed considerably between 1970 and the present.

SOURCES

1. Montana State Plan for Hospital and Medical Facilities Constructon, 1975 Revision, State Department of Health and Environmental Sciences, page 46.

2. This information and that in the following paragraphs was developed from:
   Report on Resources of Eastern Montana Basins, U. S. Department of the Interior, Bureau of Reclamation, August 1972.

3. Montana Employment and Labor Force Monthly Report - January 1975, Montana Employment Service, Employment Security Division, Department of Labor and Industry.

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II

The Future

II. THE FUTURE

Since health planning is directed at organizing a health care system that will respond to both the immediate and the long term health requirements of the target area, special attention is given to the probable future of Eastern Montana. This section discusses that probable future, especially as it relates to the area's demographic and economic characteristics. The time frame for which the Plan is being designed is the ten-year period from 1975 to 1985.

A. Economic

The economic future of Eastern Montana appears to be centered around the following industries:

- Agriculture
- Recreation and Tourism
- Air Force Facility at Glasgow
- Mineral Extraction

Below are some general observations concerning these industries as they relate to Eastern Montana's future economy. Most of the information presented herein was derived from the Report on Resources of Eastern Montana Basins, U. S. Department of the Interior, Bureau of Reclamation, August 1972.

Agriculture

Agriculture in Eastern Montana, as in the nation as a whole, has undergone considerable changes in the last decade. With the development of large-scale farming and ranch operations, the number of traditional small-acre homesteads have slowly declined. Correspondingly, the introduction of advanced agricultural techniques and equipment has reduced the demand for farm labor--Eastern Montana experienced a 20% decline in agricultural employment between 1960 and 1970 (see Table 2).

Whether or not these trends will continue is a matter for debate. However, regardless of the future size of farms and farm employment, the industry will continue to be an important component of Eastern Montana's economy. As the domestic and international demand for food increases, more and more attention will be focused on the agricultural output of this area.

Two major developments are expected to impact upon Eastern Montana's agricultural industry. First, increased emphasis will be placed upon the development and management of the area's water resources. A large number of acres, especially along the Missouri and the Yellowstone Rivers and their tributaries, can potentially be irrigated. Proposed watershed developments throughout the area, accompanied by the implementation of irrigation and drainage technologies, will enhance both the crop and livestock productivity of Eastern Montanan lands.

Secondly, in response to this increased output, it is anticipated that food processing industries will be developed. These will primarily be enterprises engaged in grain and crop processing, livestock feeding and meat packing. These types of developments will expand employment opportunities in the areas, and further magnify the agriculture industry's impact upon the area's economy.

Recreation and Tourism

Eastern Montana has a significant outdoor recreational potential. The area presently supports a storehouse of recreational resources, including the Fort Peck Reservoir, Custer National Forest, six wildlife refuges, three commercial fisheries, and nine state parks. Fort Peck, the fourth largest reservoir in the United States, and other areas provide excellent hunting, fishing, and other recreational opportunities.

Development of these resources will depend on a number of considerations, but perhaps most critical will be the availability of water for recreational uses. Since a number of multiple-use watershed projects are being planned for the area, recreational resources may be significantly expanded in the future.

The economic benefits to Eastern Montana for developing these resources will be derived primarily from tourist spending. Those industries that are associated with recreational activities (motels, service stations, sporting goods stores, etc.) are the principal recipients of these tourist dollars, and, although these establishments are somewhat seasonal in terms of employment opportunities, the industry as a whole can have a sizable impact on the Region's economy.

It is expected that the demand for outdoor recreation in Eastern Montana will increase some 35% between 1970 and 1985. As such, it appears that tourism will continue to be an important sector of the area economy. Expansion of this industry will require that the accessibility to the recreation areas be maintained or improved, that increased user amenities (boat ramps, campsites, etc.) be available, and that an effective fish and wildlife management program preserves the Region's recreational qualities.

Air Force Facility at Glasgow*

In 1964 the Air Force Base at Glasgow sustained an estimated population of 8,500. However, since its closure in 1966, the $100 million dollar facility has not been utilized to its full capacity. Currently efforts are being initiated to attract private industry to the facility. Whereas the complex has large scale warehousing, manufacturing and transport potentials, these efforts have centered around inducing industrial, commercial, aviation and educational development of the facility. Should these efforts be successful, the surrounding area can expect significant impacts upon both its employment and population levels.

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* Information herein was derived from the Overall Economic Development Program, Valley County Development Council, Valley County, Montana, 1972.

Mineral Extraction

Eastern Montana contains a number of mineral resources, including oil and gas fields and deposits of bentonite, pot ash and uranium. However, the Region's greatest resources lie in its massive reserves of coal. Extraction and processing of these coal reserves could make Eastern Montana an important center for fuel and energy generation.

Developments such as the strip mining projects near Colstrip and the proposed fertilizer plant in McCone County will have significant impacts upon the area's economy, income and population. However, there remains a great deal of speculation involved in determining these impacts. Many variables are involved, any of which could alter the proposed development of these resources.

Perhaps the most critical of these variables pertains to the potentially competing water requirements for coal, agriculture, wildlife and recreation. The unknowns surrounding possible future coal development and its impact on water use and quality, and hence on irrigation, aquatic life and recreation leave any projections uncertain at this time. Rational planning will be required to assure an adequate supply of water for both food and energy production.

Given the present domestic demand for energy, and the massive supply of easily accessible coal in Eastern Montana, the Health Planning Committee concluded that the area can expect significant expansion of its coal industries in the next decade. Therefore, for the purposes of this Areawide Health Plan, the following economic forecast is presented.

The Forecast

Given these potential developments and the anticipated demand for the Region's outputs (food, energy, fertilizer, recreation), it appears that Eastern Montana will experience significant economic growth in the next ten years. While developments in agriculture, tourism, manufacturing (at the Glasgow Air Base) and other industries will certainly contribute to this growth, the most significant impacts will be generated by coal-related developments. It is expected that within the next decade the environmental, water and other potential constraints will be resolved and that expansion of the coal extraction and power generation projects will proceed rapidly. Accompanying this economic growth, the Region can anticipate significant increases in its population base. Details pertaining to the size of the population and its geographical distribution are presented in the following section.

B. Demographic

Based on this forecast and estimates of the magnitude of the Region's future strip mining and power generation industries, especially the developments around Colstrip and Circle, an average 3% per year population growth rate is anticipated for the Region. Using a 1975 base year population estimate of 91,900*, and applying this 3% growth rate, Eastern Montana will have 106,000 people by 1980 and 119,500 in 1985. The 1985 figure represents a 30% increase in population over the 1975 figure.

While the entire Region is expected to grow, the counties will not all experience identical population growth rates. Using the rationale that the counties in which the specified coal projects are being developed will increase most rapidly, and that the adjacent and outlying counties will experience somewhat slower population growth rates, the following distribution formula was assumed.

- Coal development centers - 50% population increase
- Adjacent service areas - 30% population increase
- Outlying service areas - 16.5% population increase

Table 4 lists the respective service areas, their anticipated population growth rates and the resultant 1985 populations.

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* This was calculated on the area's 1970 to 1973 trend.

TABLE 4
EASTERN MONTANA
1985 POPULATION FORECASTS

Service Areas	Estimated 1975 Population	1980	Ten-Year Growth Rate	Forecasted 1985 Population
Custer/Prairie	12,900	12,400	30%	16,800
Daniels	3,100	2500	16.5%	3,600
Dawson/Wibaux	12,000	11,100	30%	15,600
Fallon/Carter	5,300	5800	16.5%	6,200
Garfield/McCone	4,600	4200	50%	6,900
Phillips	5,100	4900	16.5%	5,900
Powder River	1,600	3600	30%	2,100
Richland	9,600	9500	30%	12,500
Roosevelt	9,800	9300	30%	12,700
Rosebud/Treasure	8,100	7600	50%	12,100
Sheridan	5,300	5000	16.5%	6,200
Valley	14,500	9000	30%	18,900
REGION TOTAL	91,900	86,400	30%	119,500

III

The Health Care System

III. THE HEALTH CARE SYSTEM

A. Manpower

This section analyzes the manpower component of Eastern Montana's health care system, focusing upon physicians, nurses, physician extenders, dentists and allied health professionals. An inventory of health care manpower in Region I is presented, detailing the number of persons involved, their age-characteristics and professional specialties (in the case of physicians) and their distribution throughout the Eastern Montana service areas.

For the purpose of the inventory it was decided that only active professionals should be included. Active professionals were considered to be those working at least 40% of the full time equivalent (approximately 2 days weekly) for each category. Those working less, or who are absent for several months out of the year, were considered inactive and not included in the inventory. We recognize that many professionals do provide a certain amount of patient care. Their omission is based merely on the volume of their service, not the quality of the care they provide. Also, professionals who had left the area before May 1, 1975 were not included as planning for their replacement must begin immediately.

Eastern Montana's current manpower status is presented, compared with both State and national experiences and evaluated in terms of the Region's total health manpower needs. A manpower goal for the area is then presented with an outline of various alternatives available to the area for reaching the goal.

1. Inventory

a. Physicians

Currently there are $48\frac{1}{2}$* physicians actively practicing in Eastern Montana. Table 5 is a list of these doctors as they are located in the twelve service areas.

In Region I as a whole there is one physician for every 1,905 persons. However, the doctors are not evenly distributed throughout the region. As indicated in Table 5, the population per physician ratios vary from 1,209: 1 in the Custer/Prairie service area to 7,700: 1 in the Rosebud/Treasure service area. Seven of the service areas have 2,000 or greater persons per physician. The population per physician ratio for Montana is 893: 1, roughly half of Region I's total. Nationally there are 740 persons per physician.

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*$\frac{1}{2}$ time status was designated to those professionals working approximately 2 days weekly.

TABLE 5
EASTERN MONTANA PHYSICIAN INVENTORY
(Active Physicians as of May 1, 1975)

Service Areas	1973 Population	Total No. Physicians	Persons Per Physician	No. GP's & Primary Specialists	Persons Per Primary Care Physician	Other Specialists
Custer/Prairie[3]	13,300	11	1,209	5	2,660	6
Daniels	3,100	2	1,550	2	1,550	0
Dawson/Wibaux	12,300	6	2,050	5	2,460	1
Fallon/Carter[2]	5,600	1	5,600	1	5,600	0
Garfield/McCone	4,600	2½	1,840	2½	1,840	0
Phillips	5,200	2	2,600	2	2,600	0
Powder River	2,100	1	2,100	1	2,100	0
Richland	9,700	6	1,617	4	2,425	2
Roosevelt[1]	10,000	5	2,000	4	2,500	1
Rosebud/Treasure[1]	7,700	1	7,700	1	7,700	0
Sheridan	5,500	2	2,750	2	2,750	0
Valley	13,300	9	1,478	6	2,217	3
REGIONAL TOTAL	92,400	48½	1,905	35½	2,603	13

Notes: [1] The Public Health Service has 6 physicians working in the area--4 in Roosevelt County and 2 in Rosebud County. As these physicians are recruited and retained by the Federal Government, they are not counted in the inventory. Three of these physicians will be leaving in June.

[2] Dr. Weeks in Fallon County will be leaving in June, and was not included in the inventory. Carter County is expecting another physician in June.

[3] Custer Counter is expecting an obstetrician/gynecoloist in June. The NHSC physician in Prairie County will be leaving May 30, and was not included in the inventory.

In interpreting the relative levels of physician manpower within Region I it is helpful to distinguish between the general practitioners (GP's) and primary care specialists (obstetricians, gynecologists, pediatricians and internists) from the secondary care physicians. Of the 48½ medical doctors in Eastern Montana, 35½ are primary care physicians and 13 are secondary care specialists. Table 6 indicates the specialty categories of doctors in Eastern Montana. Of the primary care physicians, 31½ are general practitioners, one is an obstetrician/gynecologist, one is a pediatrician, and two are internists. The 13 secondary care specialists include five surgeons, two pathologists, two radiologists, one ophthamologist, one EENT, and two psychiatrists. These latter specialists are predominentaly located in Custer County; six of the 13 practice in this service area.

There are several physicians who provide consulting services to Eastern Montana. These physicians offer specialized services to many service areas which lack specialists. For data purposes, those consulting physicians residing in the Region were recorded in ther service area where they reside. It should be noted that they also provide a certain amount of care outside of their service area.

TABLE 6
EASTERN MONTANA PHYSICIANS
BY SPECIALTY
(Active Physicians as of May 1, 1975)

Service Areas	Total Physicians	General Practice	Obstetrics Gynecology	Pediatrics	Internal Medicine	Surgery	Pathology	Roet-genology Radiology	Optha-mology	Ophthalmology Otology Laryngology Rhinology (EENT)	Psychiatry
Custer/Prairie	11	1	1	1	2	2	1	1	1		1
Daniels	2	2									
Dawson/Wibaux	6	5						1			
Fallon/Carter	1	1									
Garfield/McCone	2½*	2½									
Phillips	2	2									
Powder River	1	1									
Richland	6	4				1	1				
Roosevelt	5	4				1					
Rosebud/Treasure	1	1									
Sheridan	2	2				1					
Valley	9	6								1	1
REGIONAL TOTAL	48½	31½	1	1	2	5	2	2	1	1	2

* ½ refers to semi-retired physician

In considering primary care doctors only, the population per physician ratios are altered considerably. Regionally, each primary care physician must serve 2,603 persons. Within the service areas, this ratio ranges from 1,550:1 in Daniels County to 7,700:1 in Rosebud/Treasure.

The average age of Eastern Montana physicians is 47.6 years. Table 7 indicates the age distribution of Region I physicians. The largest group of doctors (39%) are between the ages of 48 and 57. 22% are between 28 and 37 years of age and 24% are 38 to 47. 14% of the physicians are presently 58 years and older and will approach retirement ages over the next ten years.

Note that there is very little difference in the average age of specialists (47.4 years) as compared to primary care physicians (47.6 years). The only significant difference in the age distribution of these two groups is that the majority of specialists are in the 48 to 57 year-old age category, while the majority of primary care physicians are less than 48 years old.

TABLE 7
AGE DISTRIBUTION OF EASTERN MONTANA PHYSICIANS

AGE CATEGORY	TOTAL PHYSICIANS	GENL. PRACT'S AND PRIMARY SPECIALISTS	SPECIALISTS
28-37	22%	22%	24%
38-47	24%	30%	12%
48-57	39%	32%	53%
58-67	7%	8%	6%
68 - over	7%	8%	6%
	99%	100%	101%
Average Age:	47.5 years	47.6 years	47.4 years

As indicated by the data, Eastern Montana, like many other rural areas, generally suffers from a health manpower shortage. Recognizing the plight of rural areas and some inner cities, the Federal Government initiated a program in 1970 called the National Health Services Corps. This program is a federal health manpower deployment program which assigns Public Health Service personnel to areas where health services are inadequate because of critical shortages of health manpower.

The types of personnel assigned through the NHSC program include: physicians, dentists, nurses, physicans' assistants, optometrists, psychologists and in some cases, pharmacists.

Before a community may apply for NHSC personnel, it must be designated as a critical health manpower shortage area by the Areawide CHP Agency. This designation is based on certain criteria, including the population to be served, the present ratio of doctors to population, the numbers and types of other health personnel and health facilities, and their accessibility to the target population. In general, the Corps will assign its physicians and dentists to serve areas of no less than 4,000 population. However, exceptions are made in those cases where geography or isolation makes a service area of 4,000 people infeasible.

To attract health manpower to the program, the NHSC offers a loan repayment guarantee of up to 85% for educational loans if the personnel serve in a shortage area for three years. As well, malpractice insurance is covered by the Corps and each assignee receives $500 for continuing education expenses.

NHSC represents a cooperative effort between the Federal government and a local community working as partners to provide quality medical care. The NHSC agrees to provide administrative and financial management assistance, while the community agrees to manage the practice and to provide an office, equipment, supplies and staff support.

Currently, several NHSC professionals are working in Eastern Montana. Custer County has one NHSC psychiatrist, Terry has an NHSC physician*, Scobey has an NHSC dentist and is expecting an optometrist to begin practice in the near future. Poplar is expecting an NHSC dentist this summer. In addition, Fallon County (Baker), Daniels County (Scobey), and Roosevelt County (Poplar) have been designated a shortage area for physicians, and Garfield County (Jordan) for dentists.

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*Dr. Manke will be leaving Terry, May 30, 1975 after fulfilling his two-year commitment to NHSC.

b. Nurses

It is estimated that there are 204 active registered nurses (RN) and approximately 150 licensed practical nurses (LPN) in Eastern Montana. Table 8 is an inventory of these nurses as they are distributed throughout the service areas. Currently there is one RN for every 453 persons in the Region; There is one LPN for every 616 persons. Table 9 shows the distribution of RN's according to their place of employment, i.e., hospital, nursing home, clinic, etc.

Both the state and national population to RN ratios are 283:1. There are many other RNs in the area who are licensed but not working regularly. Nurses nationally show a high rate of turnover, as many nurses drop out of the work force as they marry, have a family or lack job opportunities in their area. Some of these nurses may join the work force in the future.

Through a grant provided by the Old West Regional Commission (OWRC), the State Comprehensive Health Planning Agency has developed a nursing project which utilizes inactive nurses in isolated rural areas to provide primary health care services to physicianless communities.

Many communities do not have sufficient population to support a physician, yet they still have health care needs and are many

TABLE 8
EASTERN MONTANA HEALTH MANPOWER INVENTORY
NURSES *

SERVICE AREAS	1973 POPULATION	REGISTERED NURSES	POPULATION PER RN	LICENSED PRACTICAL NURSES	POPULATION PER LPN
Custer/Prairie	13,300	58	229	29	459
Daniels	3,100	14.5	214	3	1,033
Dawson/Wibaux	12,300	15	820	12	1,025
Fallon/Carter	5,600	10.5	533	15	373
Garfield/McCone	4,600	10	460	2	2,300
Phillips	5,200	5.5	945	7	743
Powder River	2,100	1	2,100	---	---
Richland	9,700	18.5	524	24	404
Roosevelt	10,000	25.5	392	21	476
Rosebud/Treasure	7,700	16	481	11	700
Sheridan	5,500	11	500	8	688
Valley	13,300	18.5	719	18	739
REGIONAL TOTAL	92,400	204.0	453	150	616

* This data represents full-time equivalents, not actual number of nurses. It does not include PHS or VA nurses.

TABLE 9
EASTERN MONTANA HEALTH MANPOWER INVENTORY
NURSES - BY PLACE OF EMPLOYMENT

SERVICE AREA	TOTAL RN'S	HOSPITAL	NURSING HOME	CLINIC	P.H. NURSES	OWRC PROJECT NURSES*	VA	PHS
Custer/Prairie	89	36.5	9.5	11	1	--	31	--
Daniels	14.5	5	6.5	3	--	--	--	--
Dawson/Wibaux	15	8	1	4	1.5	.5	--	--
Fallon/Carter	10.5	10	--	--	--	.5	--	--
Garfield/McCone	10	8.5	--	.5	1	--	--	--
Phillips	5.5	4	--	--	1	.5	--	--
Powder River	1	--	--	--	1	--	--	--
Richland	18.5	12	4	1.5	1	--	--	--
Roosevelt	30.5	20.5	--	4	1	--	--	5
Rosebud/Treasure	18.5	12	--	2	1	1.0	--	2.5
Sheridan	11	6	2	2	1	--	--	--
Valley	18.5	12	--	5	1	.5	--	---
REGIONAL TOTAL	242.5	134.5	23	33	10.5	3.0	31	7.5

* These nurses work half-time.

miles away from the nearest source of health care. Over the years people in physicianless communities have "made do" with health care resources available, phoning for advice from whomever happens to be in the area with some amount of training in health. Usually these "natural health caretakers" are RN's or LPN's who help in whatever ways they can with the health problems of their neighbors.

The OWRC Nursing Project identified nine physicianless communities, located an RN in these communities, and provided for a more formal system of health care by: (1) providing a program of continuing education to update the nurses' skills; (2) providing medical supplies to allow them to function in emergency situations; and (3) providing a retainer to compensate for their time and work.

Each Project community formed a non-profit community corporation to provide community assistance and support for the community nurse. These community corporations contracted with CHP and have the responsibility of employing the nurse and maintaining the program. Liaisons with the nearest physicians were established to facilitate speedy referrals and access to sophisticated treatment.

The OWRC Nursing Project's activities are for the most part determined through a cooperative effort between each nurse and her community board. Generally, the nurses will continue providing the services they previously did informally--providing health information, referring patients to neighboring doctors, and conducting home visits to monitor the progress of the elderly and infirm. With their updated training and equipment, they will now also be able to conduct screening clinics, act as a health resource for medical emergencies (until the injured can be sent to a physician), contract with local schools for providing health services to school children, and assess health conditions to determine what further kinds of health care might be needed in their community.

At this time there are nine communities funded, six of which are in Eastern Montana. They include: Ashland (Rosebud County), Hysham (Treasure County), Plevna (Fallon County), Richey (Dawson County), Opheim (Valley County), and Saco (Phillips County).

This type of project is initially expensive, but will only require a monthly nurse's salary and the cost of replacing disposable supplies as the project continues. It is estimated, using the OWRC Project as a model, that the total cost for such a project to run for 12 months is approximately $9,000.00 per nurse. This includes everything from the cost of incorporating the boards to the cost of the most expensive equipment.

The Glendive Community Hospital Health Rural Initiative Project (see page 62), which is aimed at providing more extensive health services to rural areas in Eastern Montana, will utilize these types of nurses to expand health services in underserved areas. Four more nurses will be funded under this Project.

Other communities wishing to undertake such a program could follow the model set up by the OWRC Nursing Project and make appropriate alterations to fit their community's needs and resources. There will be a continuing need for hospital and nursing home based nurses. Many facilities are understaffed at this time. It is felt that enough nurses are being trained in Montana to meet the need, but as with physicians, there is a maldistribution problem which is compounded by the high drop-out rate of working nurses. There is also a need for more LPN's who can relieve some of the work currently undertaken by RN's. No LPN training program is offered in Eastern Montana. The nearest programs are offered in Billings and Great Falls.

c. Physician Extenders

Physician extenders are a relatively new category of health manpower that have emerged to provide additional assistance to physicians and are of significant importance to rural areas such as Eastern Montana. Currently there are two basic types of physician extenders practicing in Montana--nurse practitioners and physician assistants (PA).

Nurse practitioners are RN's who have received additional training to enable them to function in an expanded role. This training prepares them to handle a variety of situations including trauma and routine primary care. Since 1972, Montana State University at Bozeman has offered a Family Nurse Practitioner Program for nurses wishing to receive this additional training. The emphasis of the training is for nurses who will practice in rural areas. Of the first 11 nurses who graduated from the program, 8 have chosen to practice in Montana.

There are more than a dozen nurse practitioners practicing in Montana at this time. Two are practicing in Eastern Montana--one in Miles City and one in Scobey.

Most nurse practitioners in Montana work directly with a physician, except in the unique situation of the SOS Health Center at Seeley Lake.

In 1970, the residents of Seeley Lake, Ovando, and Swan Lake, located in an isolated mountainous region some sixty miles from the nearest physician, joined together to develop a health center staffed by a qualified nurse practitioner to provide basic health services to these communities. The communities sought funding from local and private sources to get the project off the ground. Although the nurse is not directly supervised on a day-to-day basis, (because of the distance involved), she maintains close contact with the nearest physicians. For the most part, she acts as the primary source of emergency and primary health care for the isolated area. The project is in its fifth year and has been a successful alternative for health care for the Seeley Lake area.

Physician assistants come from a variety of backgrounds, but they are usually ex-medical corpsmen who have received additional training through an established physician assistant training program. The training builds on their past emergency treatment experience to expand their capability to handle primary care situations. The closest physician assistant training programs are affiliated with the medical schools at the University of Washington and the University of Utah.

There are two physician assistants working in Eastern Montana currently. One is located at the Glasgow AFB clinic and one is working in Baker.* As a relatively new source of manpower, the impact of physician assistants in Montana is limited at this time. This situation will continue until the legal status of PA's is clarified. A bill which would have regulated the utilization of PA's and outlined their legal limitations was killed in the 1974 legislative session. The failure of this bill clouds the legality of using physician assistants. Until such time as legislation is passed, physicians must decide whether they wish to utilize this source of health manpower. It is hoped that legislation specifically enabling physicians to use PA's will be introduced and passed in the next legislative session.

Physician extenders are potentially important to Eastern Montana for a number of reasons. There is a critical health manpower shortage in many counties in the area. Physicians in rural areas are often overworked, and attempts to recruit additional physicians to the area have not been entirely successful. A physician extender working with a physician can handle the more routine cases, leaving the physician free to devote more time to specialized problems. Patients can have greater access to medical attention and the doctor can have more time to devote to his family, to further study, and to his patients.

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* The physician assistant in Baker will be leaving with Dr. Weeks in June.

At this time there is only one physician extender in Montana working in an out-stationed capacity, and this is the nurse in Seeley Lake. It would be beneficial to many isolated physicianless communities if a single physician extender or a physician extender-physician team could travel around to neighboring communities on a regular basis to provide basic care. Physician extenders are a rather new phenomena and their future uses will be developed through the working relationship that develops between the extenders and their physician. In an area with manpower shortages, physician extenders can be a viable means to better utilization of existing physicians.

d. Dentists

Table 10 is an inventory of dentists in Eastern Montana Counties. As displayed in that inventory, there are currently 28 dentists practicing in the Region--six counties presently are without dentists.

On a Regional basis, each dentist must serve 3,300 persons. The national persons-to-dentist ratio is 1:1,720, or roughly half of the Eastern Montana experience.

e. Allied Health Professionals

Allied health professionals are often overlooked in the discussions of the health care delivery system, yet they provide vital services

TABLE 10
EASTERN MONTANA
HEALTH MANPOWER INVENTORY
DENTISTS

Service Areas	1973 Population	Number of Dentists	Population Per Dentist
Custer/Prairie	13,300	5	2,660
Daniels *	3,100	1	3,100
Dawson/Wibaux	12,300	4	3,075
Fallon/Carter	5,600	1	5,600
Garfield/McCone	4,600	1	4,600
Phillips	5,200	1	5,200
Powder River	2,100	0	---
Richland	9,700	4.5	2,156
Roosevelt**	10,000	1.5	6,667
Rosebud/Treasure	7,700	1	7,700
Sheridan	5,500	3	1,833
Valley	13,300	5	2,660
REGIONAL TOTAL	92,400	28	3,300

* He is an NHSC dentist.

** There are two Public Health Service dentists practicing in Roosevelt County.

which greatly contribute to the total well-being of Eastern Montana's residents. Their services act as a complement to services provided by primary care professionals. In many areas, they fill in gaps in service and often act as the point of entry into the health care delivery system. Without the services they provide, Eastern Montana's health manpower shortage would be greatly aggravated.

There will be an increasing need for many categories of allied health professionals in the future as the health care system expands to meet the growing needs of the population in Eastern Montana. Since allied services are varied and the need for these services varies, a more thorough study of the situation is required before standards/goals, immediate needs or long-range goals can be developed. At this time we can only provide an inventory of allied health professionals (Table 11). Further work must be done in the future to identify needs and develop recommendations for the optimum utilization of these professionals.

2. Standards and/or Goals

Standards for future health manpower availability are often based on population per health professional ratios, using national and state ratios as a guide. While these ratios are useful for comparison, they fail to reflect geographic considerations, maldistribution problems or

TABLE 11
ALLIED HEALTH MANPOWER
EASTERN MONTANA (1974)

Service Areas	Chiro-practors	Dental Hygienists	Nurse Anes-thetists	Optome-trists	Osteo-paths	Pharm-acists	Physical Therapists	Speech Therapists	Occupational Therapists	Veteri-narians	Laboratory Personnel	Total
Custer/Prairie	3	1	2	2*	1	14	1			5	11	40
Daniels						1				1	2	4
Dawson/Wibaux	2		2	3		5	1			3	4	20
Fallon/Carter						3				1	3	7
Garfield/McCone						1				1	1	3
Phillips	2			1		2				2	1	8
Powder River						1				1	0	2
Richland	2		1	2		9	1			3	3	21
Roosevelt	1		2	2		9				3	9	26
Rosebud/Treasure	1					2				2	2	8
Sheridan	1	1		1		3		1		1	0	8
Valley	1		1	2		8	1		1	4	7	25
REGIONAL TOTAL	13	2	9	13	1	58	4	1	1	27	43	172

* Services regularly provided to Fallon County.

a small community's inability to attract and support some categories of health manpower. The Health Planning and Coordinating Committee felt that in Eastern Montana, considering the extreme weather conditions, transportation difficulties and the sparse population, ratios were an inadequate measure of the need for health manpower. Rather than separating it into categories, health manpower will be addressed as a whole system with each category contributing to the total availability of primary and emergency health services.

The health manpower goal for Eastern Montana is to provide adequate access to primary and emergency health care personnel for communities experiencing health manpower shortages. There are a variety of manpower arrangements which can fulfill this goal. The Planning Committee felt that alternatives for providing health manpower to Eastern Montana should be outlined so that local communities could assess their health manpower needs, discuss the alternatives, and determine the alternative best suited to the community's needs and resources

3. Alternatives

Alternative A - Physicians

There is currently an unmet need for physicians in Eastern Montana. This situation will continually worsen since six of the 48½ total physicians will reach retirement age over the next ten years. Recruitment of physicians has posed problems for Eastern Montana communities in the past for a number of reasons.

First, the recruitment of physicians is highly competitive nationally. Second, communities attempting to recruit physicians often lack sophistication in recruitment techniques. And, finally, the sheer distance from medical schools make it difficult for Eastern Montana communities to communicate with potential applicants.

It has been suggested that the best long-term strategy for retaining physicians in Montana is to promote greater access to medical schools for native Montana students, who would be more likely to return to their home state to practice. Such an effort demands a State-wide approach, and the State and Areawide Comprehensive Health Planning Agencies are working together to promote this concept through support of the WICHE and WAMI programs, which assist young Montanans in professional schools and offer clinical experience in rural areas to Montana medical students.

The Western Interstate Commission for Higher Education (WICHE) Student Exchange Program is an arrangement by which a student from a state without a school in the professional field of the student's choice is certified by WICHE and is subsidized by his home state for each year of education at such a professional schoo in one of the 13 WICHE states. The student must meet residency requirements for WICHE certification and preference is given to students who have accomplished their pre-professional training in Montana. WICHE does not give the student assistance in applying for or gaining admittance to the professional school of his choice. This he must do on his own.

While the WICHE Student Exchange Program has not totally solved the problem of availability for entrance into schools of medicine, dentistry, veterinary medicine, dental hygiene, physical therapy, occupational therapy, optometry and podiatry, it has done more than any other program to date. The effectiveness of the WICHE Program is limited by the number of places out-of-state schools will reserve for Montana students, and this may be the beginning of a trend toward requiring the full cost of instruction for WICHE students. However, this program is unique and extremely important to the State.

Since the program has been in operation, from 1953-54 through 1973-74, Montana has funded a total of 1,315 student years in the above mentioned health education fields. The financial outlay for the State has been $2,809,634.

The amount of support fees transmitted by each sending State sponsoring exchange students to the schools admitting the students is as follows (projections indicate that these costs will increase in the near future):

Medicine	$5,000 per student year
Dentistry	$4,000 per student year
Veterinary Medicine	$4,000 per student year
Dental Hygiene	$1,000 per student year
Physical Therapy	$1,200 + clinical fees per student year
Occupational Therapy	$1,200 + clinical fees per student year
Optometry	$1,200 per student year
Podiatry	$2,500 per student year

The WAMI Program (an acronym for the four participating states (Washington, Alaska, Montana and Idaho), permits states without medical schools to avoid prohibitive construction costs by using already existing facilities (in our State, Montana State University), and by utilizing community physicians as medical faculty for varying periods of time. Students are permitted to take the first portions of their medical training at MSU, and then transfer to the University of Washington School of Medicine for the balance of their basic curriculum. At the conclusion of their first two years, the students receive part of their training at UW and part in "community clinical units" with participating local physicians in the communities where the physicians live and practice. These units have been established to provide non-metropolitan educational experiences in primary care practice.

In addition to the WICHE and WAMI Programs, it is felt that other avenues should be explored relative to access for Montana students to schools providing education in primary health care centers. The would entail investigating arrangements for Montana students to attend professional schools outside the WICHE region. Some precedent for this was provided by the passage of the Rural Dental Act during the last legislative session which set up an arrangement for admission for Montana dental students to the University of Minnesota.*

Other methods to promote medical education for Montana students are also being investigated by the State and Areawide CHP Agencies, such as "buying slots" in neighboring medical schools and promoting the establishment of additional WAMI Community Clinical Units (CCU) in Eastern Montana. Currently there are no such units in the Region. These are relatively new ideas which will not yield results for some years, so it is important that the immediate needs for physicians be addressed through recruitment of physicians from outside the area.

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* The information on the WICHE and WAMI programs was taken from The Montana State Plan for Health, August 1974, Division of Comprehensive Health Planning, Department of Health and Environmental Sciences, pp. 85-86.

Physician recruitment is a monumental task which demands a lot of time and a certain amount of money to yield favorable results. There is no sure-fire method to guarantee success, but there is information available which will assist communities in outlining a recruitment strategy. The Areawide CHP staff will be responsible for gathering this information, disseminating the information to interested communities and assisting communities in their attempts to recruit physicians.

Another source of recruiting assistance available to communities is the National Health Service Corps (NHSC). As discussed in the inventory, this Federal program assists communities in applying for shortage area designation and recruiting physicians. The community is required to offer certain assurances, such as office space, equipment and support personnel. The Areawide CHP Agency can direct communities wishing to explore this alternative.

Once a physician is recruited, a community's work is not finished. They must then work to keep the physician in their community. There are a number of considerations which must be addressed to prepare for a lasting relationship between the physician and the community. An excerpt from the Physician's Recruitment Manual, compiled by the State CHP Agency, summarizes the situation in the following manner:

> *1. The days of solo practice in an isolated area are gone. It is neither in the best interests of the physician or his practice to require him/her to be available 24 hours a day, 365 days a year. Make provisions for time off, opportunities to attend conferences and continuing education events, and some back up (ideally a nurse practitioner or physician's assistant working with the physician full-time), and arrange for some interchange with other physicians nearby.*
>
> *2. Consideration should be given to people's ability to pay their bills, and if this is a problem, something should be devised to assure that the physician does not bear the brunt of this.*
>
> *3. A physician's wife must feel at home in the community and find outlets for her interests. Do what you can to accomplish this.*
>
> *4. The recruitment committee might wish to make itself available to the physician as a sounding board so that they are aware of any dissatisfactions as soon as they arise. This will also assure the physician of the continued interest of the community.* *

Communities seeking to recruit physicians should form an active recruitment task force who will be responsible for thoroughly investigating recruitment techniques, carefully planning a recruitment strategy and coordinating the recruitment effort.

Physicians are urgently needed in Eastern Montana. Every effort should be made by the Areawide CHP Council, individual communities and resident physicians to attract more physicians to practice in the area.

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* Source: Physician's Recruitment Manual, State Comprehensive Health Planning Agency.

Alternative B - Satellite Physician Services

Some communities may not need full-time physician coverage due to the size of their population. One method for such communities to provide for basic health services is to contract with a physician, hospital or group of physicians to provide part-time health services on a regular basis. A satellite system involving one or more towns could be developed whereby a physician would travel to various communities a number of times a month to see patients. The travel could be shared by physicians through a group arrangement, or the community could contract with a single physician in a neighboring community.

The advantages to this type of arrangement would be that physicianless communities could establish a more formal system of health services which would facilitate a speedy entrance into the delivery system for primary and emergency health care needs.

A model is being developed to test the feasibility of one form of satellite health services through the Glendive Community Hospital Rural Health Initiative project. This project proposes to offer services to outlying rural areas on a regular basis through the use of traveling physicians and other health professionals. If successful, this model could be expanded or duplicated in other areas in Eastern Montana.

Alternative C - Physician/Physician Extender Team

The problem most frequently cited by physicians leaving rural practice is the lack of backup service. Solo rural practitioners are usually greatly overworked and are singularly responsible for medical services for large populations and large geographic areas. It is important that they be provided some type of medical backup.

One method to provide relief is to develop a physician/physician extender team. As discussed earlier, physician extenders can expand a single physician's capability to provide services. They can ease a physician's patient load, allowing the physician more free time to pursue more specialized services, further training, and leisure activities.

For communities which have a physician who is overworked, the addition of a physician extender could be discussed as an alternative to recruiting another doctor. The final decision regarding whether to use a physician extender, of course, rests with the physician.

Communities recruiting one or more physicians may want to explore the possibility of recruiting a physician extender as well.

Recruiting a physician extender would involve contacting regional training programs such as those offered at Montana State University, University of Utah, and University of Washington regarding the opportunities for physician extenders in the area. The approval and assistance of the physician is mandatory for the development of any physician/physician extender teams.

A physician/physician extender team also has the potential of fitting into a satellite physician service system. The team could contract with neighboring towns to provide basic health services. The physician would then have the necessary assistance needed to more effectively provide such a service.

Alternative D - Community Health Nurse

Some communities cannot support a physician because of minimal population. Yet these communities are sometimes located in isolated areas where transportation difficulties often act as a significant barrier to the receipt of basic health services. Such a community should explore the possibility of developing a community nurse project similar to the OWRC project discussed in the Nurses section (pp. 42).

A nurse in the community may already be providing some health services informally. Provisions could be made for updating the nurse's education, developing liaisons with neighboring physicians, purchasing equipment and supplies, establishing an office and providing a part-time salary for the nurse.

Generally, the nurses will continue to provide services they previously did informally, i.e., providing health information, referring patients to neighboring doctors and conducting home visits to monitor the progress of the elderly and infirm with the updated training and equipment, the nurses may conduct screening clinics, act as a health resource in medical emergencies, contract with local schools for providing health services to school children, and assess health conditions to determine what further kinds of health care might be needed in their community.

The community health nurse could become a recognized source of health care, and by developing close ties with neighboring physicians, could formalize a system of health care referral for the community. A community with a community health nurse could also contract for part-time physician services as described under Alternative B. The nurse could assist the physician while he/she is working in the community. Office space and supplies would then also be available for the physician to use while servicing the area.

Six communities in Eastern Montana have embarked on such a project with assistance from the State CHP Agency. The State CHP staff, Areawide CHP staff and the project communities are a source of information and assistance for those communities interested in such a project.

Alternative E - Improving Emergency Medical Services

A community with no health care resources should develop their emergency medical system to promote better access to surrounding resources. Better ambulance services, staffed with trained emergency personnel, would greatly improve a community's access to quality health care services in times of emergency.

A system of two-way communication with the nearest hospital should also be developed to better facilitate continuity of emergency care. The local Emergency Medical Services Councils and the State Emergency Medical Services Bureau can offer advice and assistance to any community wishing to improve and expand their emergency medical service capability. For further information regarding emergency services, see the Emergency Medical Services sub-section under the Services section (p.109).

These alternatives are not all-inclusive. Communities have different needs and resources which will result in different arrangements for providing primary and emergency health care resources. New developments in the delivery of health services or changes in the transportation situation could add or subtract alternatives. These alternatives are presented as a basis for discussion. It is up to each community seeking to solve its health care manpower shortages to consider the possible alternatives and determine an appropriate method to address the need for primary and emergency health care services for their community. The Areawide Health Planning Council stands ready to assist communities implement these chosen alternatives.

Dentists

The public is becoming increasingly more aware of the need for dental services as part of basic health care services. Six counties in the Eastern Montana region (Carter, Powder River, Prairie, Garfield, Treasure and Wibaux) do not have any dentists. The entire Region averages 3,300 persons per dentist, compared with 1,720 persons per dentist nationally. indicating an apparent need for more dentists in the area.

As with physicians, the training of Montana students is one method to begin to address Montana's dentist shortage. The WICHE program provides financial assistance to Montana students attending dental schools. Continued efforts to support this program and to expand opportunities for Montana students interested in dental careers will continue through the State and Areawide CHP Agencies.

Recruitment techniques outlined for physicians also apply to dentists. The Areawide CHP staff will collect dentist recruitment material, disseminate the material to interested communities, and provide assistance to communities attempting to recruit dentists.

Future developments in dentistry and further study of dental manpower shortages may contribute additional alternatives for providing basic dental care to rural areas. At this time, the recruitment of more dentists to Eastern Montana appears to be the best approach to reach this goal.

B. Facilities

1. Hospital

a. Inventory

The Eastern Montana Health Service Area is currently served by 16 public and private nonprofit community hospitals and one Veteran's Administration facility (located in Miles City). The sixteen community hospitals contain 551 beds with the largest hospital, Holy Rosary, accounting for 120 or 22% of the total. Of the remaining facilities, 11 contain 30 beds or less. Two of the facilities (Garfield County and Prairie Community) contain only eight beds. The following hospital construction projects have been approved: Frances Mahon Hospital (Glasgow) for 56 beds (12 beds less than present); Glasgow Air Force Base Hospital for 15 beds; Roosevelt Memorial Hospital (Culbertson) for 14 beds (5 beds less than present).

Operating trends for each of the area's hospitals for the 1965 to 1974 period are included immediately following this section (Inventory Tables, pp. i-xiii). The V. A. Hospital has been excluded from the data due to the specialized nature of its patient base and its exempt status from the Health Planning Council's review and comment mechanism. A summary of the V.A. hospital/ nursing home operating trends are included as Appendix D.

The distribution of hospital beds in the Region has not significantly changed since 1965 (see Inventory Tables, pg.iii), even though the area experienced a 10% decline in the number of beds (from 611 to 551) during the period. Due to the lack of a tertiary care center in the Region (Miles City serves as the principal secondary care center), the bed/population ratio (60/10,000) is significantly lower than that of the U.S. as a whole (90/10,000), but is reflective of the state ratio (55/10,000).

Hospital admissions data (see Inventory Tables, pg. iv) mirror the recent steady decline in area population. The admission rate per thousand population, however, has remained fairly constant from 1969 to the present as shown below.

Year	Hospital Admissions per 1000 Population
1969	191
1970	199
1971	196
1972	196
1973	186
1974	189

The six year average admission rate is 193/1,000 population.

As admissions have declined in response to population out-migration, the average number of days spent in the hospital by each admitted patient (the average length of stay) has also declined as medical techniques and technologies have improved and emphasis is placed on treating patients on an out-patient basis. The data on the table shown on page vii indicates a fairly steady decline from 7.2 days per admission in 1969 to 5.8 in 1974. This trend is expected to continue for the near term as utilization review committees in hospitals increase utilization of outpatient clinics, and the potential development of health maintenance organizations (HMO) provide additional economic incentives to reduce length of stay.

The combination of a decline in admissions together with a continued reduction in average length of stay has resulted in a significant decrease (19%) in the number of hospital patient days utilized by the Region's population (see pg. v). Even though the number of hospital beds has fallen from 611 to 551, occupancy of those beds had fallen faster, from 55.5% of all beds days filled by patients in 1965 to 48.9% filled in 1974 (see pg. vi). This means that on any given day over half of the hospital beds in Eastern Montana are vacant (or filled with a nursing home patient) in those facilities which are combination hospital/nursing homes).

A close examination of the table on page vi displaying the trends in hospital occupancy reveals that, with few exceptions, those service areas served by fewer beds (i.e., smaller hospitals) suffer lower occupancy than those served by large institutions. The vacancies are found predominantly in beds designated as surgical, maternity and pediatrics as is indicated below:

REGIONAL HOSPITAL OCCUPANCY BY
CATEGORY OF INPATIENT CARE

Year	Medical	Surgical	Maternity	Pediatrics
1972	85%	40%	24%	42%
1973	79%	*	23%	45%
1974	70%	50%	25%	44%

* Insufficient data.
Source: Tables on pages viii, ix and x.

While these inpatient categories are largely ignored by smaller hospitals, the data clearly indicates a significant over-capacity in the non-medical bed categories.

The remaining tables presented at the end of this section (pages xi through xiv) detail the trends in surgery, outpatient visits, laboratory and radiological services by service area. Due to the incomplete nature of the data, little comprehensive analysis can be presented. Hopefully, an improved data collection system will implemented by the State through the Areawide Health Planning Councils which will result in more complete statistics. The remaining table (found on page xv) displays the results of a patient origin study covering nine of the 16 county hospitals and the V.A. hospital. The study was undertaken in 1970-71 and clearly shows that virtually all patients come either from Eastern Montana or from out-of-state (probably the Dakotas or relatives). As would be expected, Holy Rosary serves as the principle secondary care center to those living in Districts 2 and 3. Individuals seeking secondary care in District 1 were identified in the study as going to Havre, Great Falls and Billings.

The residents of the northeastern portion of Montana have recently shown a strong indication of traveling to Mercy Hospital in Williston, North Dakota, for health care as indicated by the following figures:

	Total Admissions	Admissions from Montana	Percent
Feb. 1967	203	8	3.9
Feb. 1968	270	23	8.2
Feb. 1969	308	23	7.5
Feb. 1970	343	18	5.3
Feb. 1971	304	29	9.5
Feb. 1972	262	19	7.3
Feb. 1973	331	53	16.0
Feb. 1974	446	91	20.4

b. Standards and/or Goals

The usual criteria for judging the adequacy of hospital services in an area is bed occupancy. If occupancy is low, that usually indicates an excess supply of hospital beds.

While various studies of hospital operations have suggested that an 80% overall occupancy rate is optimal in terms of efficiency, they were usually based on larger (100+ beds) urban hospitals. In rural, isolated areas like Eastern Montana which contain numerous small, church or county-supported facilities, efficiency considerations must be offset in part by consideration of access, unique peak loading problems, and consumer willingness to subsidize less than optimal facilities. After due consideration to these major tradeoffs, the Health Planning and Coordinating Committee recommended a standard of 70% occupancy be used to evaluate the immediate and future needs for hospital beds and support and ancillary facilities.

Two additional planning assumptions covering the hospital admission rate per thousand population and the average length of stay were required prior to estimating hospital need. As indicated above, the admission rate has fluctuated between 189 admissions per thousand (1974) and 199 per thousand (1970) since 1969 (see table on page 70).

After examining the historical data presented above and in the table on page iv, the Planning Committee concluded that the admission rate would remain relatively stable throughout the 10-year planning period at approximately 192 admissions per thousand population. This assumption infers that any major decline in the admission rate caused by increased outpatient emphasis and HMO activity will be offset by increased hospital pressure generated by National Health Insurance and advances in secondary care capacity by hospitals in the Region.

Consideration of the historical decreases in average length of stay (see Inventory Tables, pg. vii), caused in part by implementation of hospital utilization review committees and third party payor pressure, led the Committee to conclude that it would continue to diminish, leveling off at approximately five days per admission prior to 1985. An immediate decline from the 1974 figure of 5.8 to an estimated 5.57 days per admission forecasted for 1975 was reflective of the average decline since 1970.

c. Immediate Needs

Projections for immediate needs (1975) are based on the population forecasts generated in the Demographic section (pg. 32) and the various standards and planning assumptions indicated above. The immediate (and long range) needs were calculated for each of the three Governor's multi-county planning districts comprising Eastern Montana. However, because the data were arranged by service area, Prairie County (population 2,000), which is officially located in District 2, was included in District 3 because it is identified as part of the Custer County service area. The impact of this exception is minimal due to Prairie County's small population. The following table (Table 12) arrays the immediate need for hospital beds (and hence related services) in Eastern Montana.

As indicated in Table 12, given the Region's estimated 1975 population and the planning assumptions covering admission rates, average length of stay and standard of 70% occupancy, the Region still contains 30% (163 beds) more beds than required to handle the 98,370 patient days projected to be generated in the Region. District 2, with a 22% bed surplus, contains the fewest excess beds, while the remaining two districts are equally over-bedded. Therefore, no further hospital expansion in the Region should take place unless there are concommitant reductions in the number of existing beds.

d. Long Term Objectives

Utilizing the same methodology together with the 1985 planning assumptions and population forecasts developed by the Planning Committee, Table 13 reflects the long range hospital bed needs.

TABLE 12
IMMEDIATE HOSPITAL BED SURPLUS (DEFICIT) FOR EASTERN MONTANA'S PLANNING DISTRICTS
1975

	(1) Existing or Approved Hospital Beds	(2) Projected 1975 Population (In Thousands)	(3) Projected Admissions* Per 1000	(4) Projected Admissions (Col. 2 x 3)	(5) Projected Avg. Length of Stay	(6) Projected Patient Days (Col. 4 x 5)	(7) Total Bed Demand (Col. 6 ÷ 365)	(8) Total Bed Need at 70% Occupancy (Col. 7 ÷ .70)	(9) Projected Bed Surplus (or Deficit (Col. 1 -8)
DISTRICT 1	231								
Daniels	231	37.8	195	7,370	5.5	40,540	111	159	72
Phillips									
Roosevelt									
Sheridan									
Valley									
DISTRICT 2 **									
Dawson	129	26.2	180	4,710	5.4	25,470	70	100	29
Garfield									
McCone									
Richland									
Wibaux									
DISTRICT 3 **									
Carter	189	27.9	200	5,580	5.8	32,360	89	127	62
Custer									
Fallon									
Powder River									
Prairie									
Rosebud									
TOTALS	549	91.9	192.2	17,660	5.57	98,370	270	386	163

* The hospital admission rate and length of stay reflects district experience, with District III reflecting the highest rate due to the presence of the Region's Secondary Care Center at Miles City.

** Prairie County is included in District III due to its Custer County service area designation.

TABLE 13
LONG RANGE HOSPITAL BED SURPLUS (DEFICIT) FOR EASTERN MONTANA'S PLANNING DISTRICTS
1985

	(1) Existing or Approved Hospital Beds	(2) Projected 1985 Population (In Thousands)	(3) Projected Admissions* Per 1000	(4) Projected Admissions (Col. 2 x 3)	(5) Projected Avg. Length of Stay	(6) Projected Patient Days (Col. 4 x 5)	(7) Total Bed Demand (Col. 6 ÷ 365)	(8) Total Bed Need at 70% Occupancy (Col. 7 ÷ .70)	(9) Projected Bed Surplus (or Defici (Col. 1 - 8)
DISTRICT 1									
Daniels	231	47.3	195	9,200	5.0	46,120	126	180	51
Phillips									
Roosevelt									
Sheridan									
Valley									
DISTRICT 2 **									
Dawson	129	35.0	180	6,300	4.9	30,870	85	121	8
Garfield									
McCone									
Richland									
Wibaux									
DISTRICT 3 **									
Carter	189	37.2	200	7,440	5.2	38,688	106	151	38
Custer									
Fallon									
Powder River									
Prairie									
Rosebud									
TOTALS	549	119.5	192	22,940	5.04	115,678	317	452	97

* The hospital admission rate and length of stay reflects district experience, with District III reflecting the highest rate due to the presence of the Region's Secondary Care Center at Miles City.

** Prairie County is included in District III due to its Custer County service area designation.

Again, given the Region's planning assumptions and forecasts for the 10-year planning horizons (1985), the area still has more than adequate hospital bed and service coverage. A tremendous influx of population would be required to justify the 97 bed surplus, and even if that were to occur, the region's bed occupancy rate would then be 70%, leaving a 30% cushion. Hospitals in District 2, especially those in Sidney and Glendive, should be operating at a high rate of occupancy. The remaining districts will still contain a 20% excess in beds.

These projected surpluses do not mean that hospital bed replacement construction should not be allowed. Rather, those hospitals wishing to modernize facilities should do so either with fewer beds or seek mergers with other neighboring facilities which agree to close down beds prior to their being given approval.

In summary, the Region suffers from a significant surplus of hospital beds which should continue past 1985. Efforts should be made to reduce this surplus as soon as reasonably possible. While the final choice is obviously that of the various communities, counties, and religious orders involved, continued pressure to ease this situation (and thereby reduce the cost of providing inpatient medical care to the consumer) will be generated by CHP and private and public third party payors. The following section provides some alternatives which should be explored to rectify the situation.

Alternatives

1. Continued Subsidization of the Status Quo

Communities, counties and religious orders can continue to subsidize the existing surplus of beds. It is important to note that the cost of subsidization will probably increase as facilities age, utilization declines and third party payors become more reluctant to certify for reimbursement. Attrition will significantly impact on the smaller facilities over the 10-year planning period, resulting in a partial solution to the problem, providing that status quo replacement facilities are not approved for construction.

2. Reclassification of Hospital Beds into Nursing Home Beds

This alternative involves shifting surplus hospital beds into nursing home bed status to meet the anticipated future demand for such facilities (see next section). Some or all of a facility's beds could be reclassified, permitting reduction in staff requirements and increases in occupancy which should reduce or eliminate any existing subsidization.

Both the State and Federal governments are currently seeking ways to assist facilities in undertaking this type of transformation.

3. Develop Satellite Systems

This option would involve eliminating most or all of a smaller hospital's beds and turning the facility into a satellite out-patient clinic with perhaps minimal stay beds. The smaller facility would then formally align itself with one (or more) of the Region's larger hospitals who would provide in-patient back-up and personnel support services. This system would easily be merged with the reclassification alternative mentioned above.

4. Close Hospital Facilities and Improve Emergency Medical System

Obviously, this is the most expeditious method of eliminating surplus beds. In those communities containing facilities with continually declining demand and mounting subsidy requirements but lacking a long term debt, this option is the most practical. Realization of that fact, however, can often be clouded by emotion, which eliminates this alternative before it is duly considered. Any assessment should begin with this option and its advantages and disadvantages explored in light of the community's needs and the other alternatives.

2. Long Term Nursing Care

a. Inventory

The region's supply of nursing home beds has grown significantly over the last six years, in spite of the leveling off of population growth. The 15 nursing homes serving the area supply a total of 665 beds in all levels of care categories. The following nine facilities are combination hospitals and long term care facilities.

Facility	No. Hospital Beds	No. Nursing Care Beds
Fallon Memorial (Baker)	19	32
Dahl Memorial (Ekalaka)	16	21
Rosebud Community (Forsyth)	26	39
Glendive Community (Glendive)	46	49
Garfield County (Jordan)	8	12
Sheridan Memorial (Plentywood)	26	33
Poplar Community (Poplar)	22	20
Daniels Memorial (Scobey)	20	19
Prairie Community (Terry)	8	12
	191	237

Virtually all of these consolidated facilities are located in the smaller rural towns (with the exception of Glendive), averaging only 26 beds (compared to an average of 42 beds for all the Region's nursing care facilities). They account for 36% of the existing supply of beds.

Historical trend data inventorying beds, admissions, patient days, and occupancy are presented on pages xvii-xxx, immediately following this section. While the data covers the 1965, 1969-74 period, due to changes in licensure procedure, only those data presented for 1971 to the present can safely be used for trend analysis relating to the various levels of care.

As mentioned above, the supply of nursing home beds increased 77% from 1969 to the present, while population declined in the region. With the recent approval of the following bed additions, the total bed supply could reach 883 by 1976.

Facility	No. of Beds
Valley View Nursing Home (Glasgow)	32
McCone County Nursing Home (Circle)	40
Daniels Memorial Nursing Home (Scobey)	40
Wibaux County Nursing Home (Wibaux)	40
Roosevelt Memorial Nursing Home (Culbertson)	40
Glendive Community Nursing Home (Glendive)	26
	218

The level of service bed mix (i.e., percentage of skilled, intermediate A and intermediate B) has remained virtually unchanged since 1971 when those classifications were instituted and data were subsequently collected by the State and Federal government (see table on page xix).

As indicated in the table on page xxiv, the number of patient days demanded in the Region has continued to soar, increasing 111% since 1970. It should be noted that nursing home admission data are less helpful than corresponding hospital admission data because average patient stay is about three years for nursing home patients as opposed to 5.8 days for hospitals (see Nursing Home Profile, page xxx). Therefore, when a patient is admitted to a nursing home, the bed occupied will not be be available for that three-year period of time. Hence, the factor most significant is the percentage of the population which will occupy these beds in any given year. Furthermore, since the primary market for such a facility is largely concentrated in the 65-year and older age cohort, the growth of that cohort and the increase in the use rate become the key variables for forecasting future nursing home bed requirements.

From the data collected by the Areawide Health Planning Council in January 1975 from nursing home facilities (see profile data, pages xxix-xxx), together with the various trend data, it was possible to determine that approximately 6.5% of the 65 and older population in the Region are currently in nursing home facilities (note: a small number of patients are younger than 65 years and suffer from mental retardation or multiple sclerosis which caused them to be institutionalized. An adjustment factor for this component of demand was included in the 6.5%).

Historical occupancy rates, as reflected in the table on page xxviii, clearly reflects tremendous utilization of existing facilities. Based on the January survey, the current occupancy rate appears to be 97%, indicating that 642 patients are filling the 665 beds available. Of equal significance is the fact that there appears to be low utilization (53% occupancy) of skilled nursing beds by skilled patients, but over-utilization of available intermediate A beds (130% occupancy), indicating that a significant number of skilled beds, approximately 74, are being used for patients requiring a lower level of care. A more realistic distribution of beds, based on existing use, would be:

Skilled	44%
Intermediate A	48%
Intermediate B	8%
	100%

b. Standards and/or Goals

Again, the optimal standard for nursing home operation is usually reflected by a target occupancy rate. Due to the longer length of stay, lower turnover and stability of demand (i.e., fewer peak loading problems caused by epidemics, etc.), desired occupancy is significantly higher than is used for hospitals. Most authorities agree that a 90% occupancy rate will generate an optimal utilization of a nursing home.

c. Immediate Needs

Again, the important criteria for need involves what percentage of an area's elderly is going to require institutionalization for any given year. Based on the existing data for Eastern Montana, it appears that the current rate is 6.5% of those 65+. That rate appears to be growing as the result of the increasingly greater percentage of elderly (or their families) demanding care or due to past shortages of beds, which forced people to either go to other areas for care or to be taken care of at home. Thus, the use rate could be greater than 6.5% had there been available beds. The patient origin data collected by the North Central Health Planning Council in December 1974 (pp. xxxi-xxxiii) indicated a significant number of nursing home patients who originated in Eastern Montana, but were currently in nursing homes along the High Line. Unfortunately, similar data from the South Central (Billings) area are not available to better quantify the magnitude of exported demand.

The following table (Table 14) indicates the immediate need for nursing home beds by planning district (again, Prairie County is included in District 3) for 1975. The 6.5% use rate was used and the projected 65+ population was based on the demographic analysis described in Section II above, together with the 90% occupancy standard. Level of care disaggregations of need were based on the historical use proportions: 44% skilled, 48% intermediate A and 8% intermediate B.

TABLE 14

IMMEDIATE (1975) BED NEED FOR LONG TERM CARE FACILITIES BY DISTRICT AND BED TYPE

	(1) 1974 Beds	(2) Proj. 1975 Population 65+	(3) Percent Use Rate	(4) Proj. No. In-Patients (Col. 2 x 3)	(5) Total Bed Need at 90% Occupancy (Col. 4 ÷ .90)	(6) Bed (Need) or Surplus (Col. 1 - 5)	(7) Additional Approved Beds	(8) Unfilled Bed (Need) or Surplus (Col. 7 - 6)
DISTRICT 1								
Skilled	112			116	129	(17)		
Int. A	94			126	140	(46)		
Int. B				21	23	(2)		
Total Existing	227	4,038	6.5%	263	292	(65)	112	47
DISTRICT 2 (excluding Prairie)								
Skilled	69			77	86	(17)		
Int. A	48			85	94	(46)		
Int. B				14	16	13		
Total Existing	146	2,712	6.5%	176	196	(50)	106	56
DISTRICT 3 (including Prairie)								
Skilled	184				101	83		83
Int. A	105				110	(5)		(5)
Int. B	3				18	(15)		(15)
Total Existing	292	3,176	6.5%	206	229	63	0	63
REGIONAL TOTALS	665	9,926	6.5%	645	717	(52)	218	166

As reflected in the preceding table, there currently exists an overall need of 52 additional nursing home beds in the Region. Districts 1 and 2 show significant deficits while District 3 currently is over-bedded, especially in skilled beds. The approved addition of 218 beds will more than satisfy the deficits and generate a 166 bed surplus if all those projects are successfully accomplished.

d. Long Term Objectives

Similar calculations were done for 1980 and 1985 and are presented in the following two tables (Tables 15 and 16). The use rate assumption was increased from 6.5% to 7.0% in 1980 and 7.5% in 1985 to reflect previously suppressed demand and increasing acceptance of nursing home care by the Region's residents. As shown, significant deficits begin to occur in 1980 and increase dramatically by 1985. These bed deficits appear to furnish a reservoir of needed nursing home beds which should induce over-bedded hospitals into seriously considering shifting all or a greater number of their beds into nursing home use.

TABLE 15
1980 BED NEED FOR LONG TERM CARE FACILITIES BY DISTRICT AND BED TYPE

	(1) 1974 Beds	(2) Proj. 1980 Population 65+	(3) Percent Use Rate	(4) Proj. No. In-Patients (Col. 2 x 3)	(5) Total Bed Need at 90% Occupancy (Col. 4 ÷ .90)	(6) Bed (Need) or Surplus (Col. 1 - 5)	(7) Additional Approved Beds	(8) Unfilled Bed (Need) or Surplus (Col. 7 - 6)
DISTRICT 1								
Skilled	112			130	145	(33)		
Int. A	94			142	158	(64)		
Int. B	21			24	26	(5)		
Total Existing	227	4,232	7.0%	296	329	(102)	112	10
DISTRICT 2 (excluding Prairie)								
Skilled	69			96	106	(37)		
Int. A	48			104	116	(68)		
Int. B	29			17	19	10		
Total Existing	146	3,103	7.0%	217	241	(95)	106	(11)
DISTRICT 3 (including Prairie)								
Skilled	184			111	123	61		61
Int. A	105			121	135	(30)		(30)
Int. B	3			20	22	(19)		(19)
Total Existing	292	3,598	7.0%	252	280	12	0	12
REGIONAL TOTALS	665	10,933	7.0%	765	850	(185)	218	33

TABLE 16
LONG RANGE (1985) BED NEED FOR LONG TERM CARE FACILITIES BY DISTRICT AND BED TYPE

	(1) 1974 Beds	(2) Proj. 1985 Population 65+	(3) Percent Use Rate	(4) Proj. No. In-Patients (Col. 2 x 3)	(5) Total Bed Need at 90% Occupancy (Col. 4 ÷ .90)	(6) Bed (Need) or Surplus (Col. 1 - 5)	(7) Additional Approved Beds	(8) Unfilled Bed (Need) or Surplus (Col. 7 - 6)
DISTRICT 1								
Skilled	112			156	173	(61)		
Int. A	94			170	189	(95)		
Int. B	21			28	31	(10)		
Total Existing	227	4,723	7.5%	354	393	(166)	112	(54)
DISTRICT 2 (excluding Prairie)								
Skilled	69			117	129	(60)		
Int. A	48			127	141	(93)		
Int. B	29			21	24	5		
Total Existing	146	3,532	7.5%	265	294	(148)	106	(42)
DISTRICT 3 (including Prairie)								
Skilled	184			136	151	33		
Int. A	105			149	165	(60)		
Int. B	3			25	28	(25)		
Total Existing	292	4,127	7.5%	310	344	(52)	0	(52)
REGIONAL TOTALS	665	12,382	7.5%	929	1,031	(366)	218	(148)

Inventory Tables
Acute Care
and
Long Term Care Facilities

ACUTE CARE FACILITIES

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ACUTE CARE FACILITIES--

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EXPLANATORY NOTE

The data displayed in the accompanying facilities tables were derived from data collected by Montana State Department of Health and Environmental Sciences, Hospital and Medical Facilities Division, and a survey of facilities conducted by John Short & Associates, Inc., January 1975.

Service areas containing combination hospital and nursing home facilities are: Custer/Prairie Counties, Daniels County, Dawson/Wibaux Counties, Fallon/Carter Counties, Garfield/McCone Counties, Rosebud/Treasure Counties, Sheridan County and Roosevelt County. Inconsistencies in the data have been introduced by the failure to report facilities separately; for example, a nursing home bed might serve as a temporary hospital bed.

Facilities that have received project approval are:

Roosevelt Memorial Hospital (Culbertson)	14 beds
Frances Mahon Hospital (Glasgow)	56 beds
Glasgow Air Force Base	15 beds
Valley View Nursing Home (Glasgow)	32 beds
McCone County Nursing Home (Circle)	40 beds
Daniels Memorial Nursing Home (Scobey)	40 beds
Wibaux County Nursing Home (Wibaux)	40 beds
Roosevelt Memorial Nursing Home (Culbertson)	40 beds
Glendive Community Nursing Home (Glendive)	26 beds

If data were not available, it has been indicated in the tables as "N/A". An infinite rate (e.g., from no beds to many, or patient usage of zero beds) is shown as double dash (--).

TRENDS IN NUMBER OF HOSPITAL BEDS BY SERVICE AREA
EASTERN MONTANA
1965 & 1969 THROUGH 1974

SERVICE AREA	1965		1969		1970		1971		1972		1973		1974		Percent Increase/Decrease	
	No.	% of Region	No.	% of Region	No.	% of Region	No.	% of Region	No.	% of Region	No.	% of Region	No.	% of Region	1974 over 1965	1974 over 1970
Custer/Prairie Co.'s	147	24.	148	25.	146	25.	143	25.	148	25.	134	24.	128	23.	-13.	-12.
Daniels County	26	4.	20	3.	20	3.	20	3.	20	3.	20	4.	20	4.	-23.	0.
Dawson/Wibaux Co.'s	46	8.	46	8.	46	8.	46	8.	46	8.	46	8.	46	8.	0.	0.
Fallon/Carter Co.'s	35	6.	35	6.	44	7.	45	8.	45	8.	45	8.	35	6.	0.	-20.
Garfield/McCone Co.'s	43	7.	42	7.	40	7.	40	7.	40	7.	28	5.	28	5.	-35.	-30.
Phillips County	30	5.	30	5.	30	5.	30	5.	30	5.	30	5.	30	5.	0.	0.
Powder River County	0	0.	0	0.	0	0.	0	0.	0	0.	0	0.	0	0.	0.	0.
Richland County	54	9.	54	9.	55	9.	55	10.	55	9.	55	10.	55	10.	2.	0.
Roosevelt County	92	15.	93	16.	96	16.	91	16.	91	15.	89	16.	89	16.	-3.	-7.
Rosebud/Treasure Co.'s	20	3.	20	3.	20	3.	20	3.	20	3.	26	5.	26	5.	30.	30.
Sheridan County	32	5.	32	5.	32	5.	32	6.	32	5.	26	5.	26	5.	-19.	-19.
Valley County	86	14.	63	11.	63	11.	54	9.	68	11.	68	12.	68	12.	-21.	8.
TOTAL	611	100.	583	100.	592	100.	576	100.	595	100.	567	100.	551	100.	-10.	-7.

TRENDS IN NUMBER OF HOSPITAL ADMISSIONS BY SERVICE AREA
EASTERN MONTANA
1965 & 1969 THROUGH 1974

SERVICE AREA	1965	1969	1970	1971	1972	1973	1974	Percent Increase/Decrease	
	No.	No.	No.	No.	No.	No.	No.	1974 over 1965	1974 over 1970
Custer/Prairie Co.'s	4,379	4,730	6,554	4,178	3,862	3,642	3,811	-13.	-42.
Daniels County	483	453	401	387	331	364	N/A	N/A	N/A
Dawson/Wibaux Co.'s	1,688	1,361	1,511	1,538	1,789	1,533	1,568	-7.	4.
Fallon/Carter Co.'s	1,116	1,117	1,126	785	966	1,009	968	-13.	-14.
Garfield/McCone Co.'s	1,075	973	938	893	782	801	730	-32.	-22.
Phillips County	795	777	745	822	842	867	954	20.	28.
Powder River County	0	0	0	0	0	0	0	0.	0.
Richland County	2,801	2,498	2,619	2,583	2,288	2,082	2,333	-17.	-11.
Roosevelt County	3,986	2,822	3,226	3,335	3,408	3,194	2,916	-27.	-10.
Rosebud/Treasure Co.'s	762	647	597	562	641	595	756	-1.	27.
Sheridan County	1,078	1,250	981	946	916	907	953	-12.	-3.
Valley County	1,605	1,821	2,007	2,217	2,249	2,197	2,085	30.	4.
TOTAL	19,768	18,449	18,502	18,246	18,074	17,191	17,074	-14.	-8.

TRENDS IN NUMBER OF HOSPITAL PATIENT DAYS BY SERVICE AREA
EASTERN MONTANA
1965 & 1969 THROUGH 1974

SERVICE AREA	1965	1969	1970	1971	1972	1973	1974	Percent Increase/Decrease	
	No.	No.	No.	No.	No.	No.	No.	1974 over 1965	1974 over 1970
Custer/Prairie Co.'s	29,337	33,932	28,153	26,564	23,176	21,690	24,693	-16.	-12.
Daniels County	3,650	2,741	2,655	2,263	1,011	1,622	N/A	N/A	N/A
Dawson/Wibaux Co.'s	10,704	8,692	9,378	10,280	11,469	8,982	9,077	-15.	-3.
Fallon/Carter Co.'s	7,754	8,127	7,164	6,217	5,180	4,475	4,538	-41.	-37.
Garfield/McCone Co.'s	7,512	8,948	5,047	6,267	4,765	7,943	3,559	-53.	-29.
Phillips County	6,944	7,668	5,308	5,528	7,741	6,642	7,190	4.	35.
Powder River County	0	0	0	0	0	0	0	0.	0.
Richland County	13,196	14,842	14,089	14,636	13,606	10,643	12,923	-2.	-8.
Roosevelt County	21,191	23,115	22,647	21,953	15,661	18,013	14,874	-30.	-34.
Rosebud/Treasure Co.'s	4,528	6,054	4,086	3,347	5,608	5,189	4,542	0.	11.
Sheridan County	7,900	8,000	8,739	7,952	7,799	6,977	6,603	-16.	-24.
Valley County	11,153	11,483	12,352	15,816	15,748	13,178	11,773	6.	-5.
TOTAL	123,869	133,630	119,545	119,825	111,764	105,354	99,772	-19.	-17.

TRENDS IN HOSPITAL OCCUPANCY BY SERVICE AREA
EASTERN MONTANA
1965 & 1969 THROUGH 1974

SERVICE AREA	1965		1969		1970		1971		1972		1973		1974		Bed Usage Percent Increase/Decrease	
	No. of Beds	% Occ.	No. of Beds	% Occ.	No. of Beds	% Occ.	No. of Beds	% Occ.	No. of Beds	% Occ.	No. of Beds	% Occ.	No. of Beds	% Occ.	1974 over 1965	1974 over 1970
Custer/Prairie Co.'s	147	54.6	148	62.8	146	52.8	143	50.9	148	42.2	134	43.7	128	52.1	-16.9	-13.5
Daniels County	26	38.5	20	38.0	20	36.4	20	31.0	20	13.8	20	22.2	20	N/A	N/A	N/A
Dawson/Wibaux Co.'s	46	64.0	46	63.0	46	56.5	46	56.5	46	68.3	46	54.0	46	54.1	-15.5	-4.2
Fallon/Carter Co.'s	35	60.7	35	63.6	44	44.6	45	37.9	45	31.5	45	27.2	35	35.5	-41.5	-36.7
Garfield/McCone Co.'s	43	47.9	42	58.4	40	34.6	40	42.9	40	32.6	28	77.7	28	34.8	-52.7	-29.6
Phillips County	30	63.4	30	70.0	30	48.0	30	50.5	30	70.7	30	60.7	30	65.7	3.6	36.9
Powder River County	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0
Richland County	54	67.0	54	75.0	55	70.0	55	72.9	55	67.8	55	53.0	55	64.4	-2.1	-8.0
Roosevelt County	92	63.1	93	68.1	94	66.0	91	66.1	91	47.2	89	55.5	89	45.8	-29.8	-34.3
Rosebud/Treasure Co.'s	20	62.0	20	83.0	20	55.2	20	45.8	20	76.8	26	53.9	26	47.9	.4	12.8
Sheridan County	32	67.6	32	69.0	32	75.0	32	68.0	32	66.8	26	73.5	26	69.6	-16.3	-24.6
Valley County	86	35.5	63	50.0	63	54.0	54	80.0	68	63.4	68	53.1	68	47.4	5.6	-5.3
TOTAL	611	55.5	583	62.8	590	55.6	576	57.0	595	50.7	567	50.2	551	48.9	-20.5	-16.5

TRENDS IN HOSPITAL AVERAGE LENGTH OF STAY (DAYS) BY SERVICE AREA
EASTERN MONTANA
1965 & 1969 THROUGH 1974

SERVICE AREA	1965	1969	1970	1971	1972	1973	1974	Percent Increase/Decrease	
	Avg. Len. of Stay	Avg. Len. of Stay	Avg. Len. of Stay	Avg. Len. of Stay	Avg. Len. of Stay	Avg. Len. of Stay	Avg. Len. of Stay	1974 over 1965	1974 over 1970
Custer/Prairie Co.'s	6.7	7.2	4.3	6.4	6.0	6.0	6.5	-3.	51.2
Daniels County	7.6	6.0	6.6	5.9	3.1	4.5	N/A	N/A	N/A
Dawson/Wibaux Co.'s	6.3	6.4	6.2	6.7	6.4	5.9	5.8	-7.9	-6.5
Fallon/Carter Co.'s	7.0	7.3	6.4	7.9	5.4	4.4	4.7	-32.9	-26.6
Garfield/McCone Co.'s	7.0	9.2	5.4	7.0	6.1	9.9	4.9	-30.0	-9.3
Phillips County	8.7	9.9	7.1	6.7	9.2	7.7	7.5	-13.8	5.6
Powder River County	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Richland County	4.7	5.9	5.6	5.7	5.9	5.1	5.5	17.0	-1.8
Roosevelt County	5.3	8.2	7.0	6.6	4.6	5.6	5.1	-3.8	-27.1
Rosebud/Treasure Co.'s	5.9	9.4	6.8	6.0	8.7	8.7	6.0	1.7	-11.8
Sheridan County	7.3	6.4	8.9	8.4	8.5	7.7	6.9	-5.5	-22.5
Valley County	7.0	6.3	6.2	7.1	7.0	6.0	5.6	-20.0	-9.7
TOTAL	6.3	7.2	6.5	6.6	6.2	6.1	5.8	-7.9	-10.7

TRENDS IN NUMBER OF HOSPITAL BEDS BY SERVICE AREA BY CATEGORIES OF INPATIENT CARE *
EASTERN MONTANA - 1972 THROUGH 1974

SERVICE AREA	TOTAL			MEDICAL			SURGICAL			MATERNITY			PEDIATRICS		
	1972	1973	1974	1972	1973	1974	1972	1973	1974	1972	1973	1974	1972	1973	1974
Custer/Prairie Co.'s	148	134	128	53	7	41	66	0	45	12	17	19	14	10	11
Daniels County	20	20	0	0	20	0	0	0	0	0	0	0	0	0	0
Dawson/Wibaux Co.'s	46	46	46	0	40	40	40	0	0	6	6	6	0	0	0
Fallon/Carter Co.'s	45	45	35	0	20	36	0	0	0	0	1	4	0	7	5
Garfield/McCone Co.'s	40	28	28	14	20	20	2	2	2	2	2	2	2	4	4
Phillips County	30	30	30	18	19	19	2	2	2	4	4	4	2	2	2
Powder River County	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Richland County	55	55	55	21	21	21	20	20	20	6	6	6	4	4	4
Roosevelt County	91	89	89	27	27	15	15	15	13	14	13	13	12	12	12
Rosebud/Treasure Co.'s	20	20	26	12	N/A	N/A	4	N/A	N/A	2	N/A	N/A	2	N/A	N/A
Sheridan County	32	26	26	17	15	15	10	8	8	2	2	2	3	1	1
Valley County	68	68	68	41	41	35	0	0	0	11	11	11	2	2	2
TOTAL	595	567	551	203	232	242	159	47	90	59	62	67	41	42	41

* The categories--Medical, Surgical, Maternity, Pediatrics--are not exhaustive; the total figure, therefore, may exceed the sum of the figures in the four categories.

TRENDS IN NUMBER OF HOSPITAL ADMISSIONS BY SERVICE AREA
BY CATEGORIES OF INPATIENT CARE
EASTERN MONTANA - 1972 THROUGH 1974

SERVICE AREA	MEDICAL			SURGICAL			MATERNITY			PEDIATRICS		
	1972	1973	1974	1972	1973	1974	1972	1973	1974	1972	1973	1974
Custer/Prairie Co.'s	1425	1509	1531	357	410	337	723	762	818	363	299	315
Daniels County	331	364	357	N/A	→	→	→	→	37	N/A	→	→
Dawson/Wibaux Co.'s	N/A	→	→	→	→	→	200	193	459	N/A	→	→
Fallon/Carter Co.'s	N/A	→	→	→	→	→	→	→	→	→	→	→
Garfield/McCone Co.'s	N/A	→	51	N/A	→	→	26	16	21	N/A	→	→
Phillips County	N/A	→	→	→	→	→	62	50	58	N/A	→	→
Powder River County	0	→	→	→	→	→	→	→	→	→	→	→
Richland County	N/A	→	→	→	→	→	187	173	167	N/A	→	→
Roosevelt County	3433	2999	2704	N/A	→	→	251	225	215	378	298	304
Rosebud/Treasure Co.'s	N/A	→	→	→	→	→	→	15	15	N/A	→	127
Sheridan County	908	917	N/A	→	→	→	→	73	78	N/A	→	→
Valley County	N/A	→	→	→	→	→	→	→	287	N/A	→	→

Source: John Short & Associates, Inc., Acute Care Facilities Survey, January, 1975.

TRENDS IN NUMBER OF HOSPITAL PATIENT DAYS BY SERVICE AREA
BY CATEGORIES OF INPATIENT CARE*
EASTERN MONTANA - 1972 THROUGH 1974

SERVICE AREA	TOTAL			MEDICAL			SURGICAL			MATERNITY			PEDIATRICS		
	1972	1973	1974	1972	1973	1974	1972	1973	1974	1972	1973	1974	1972	1973	1974
Custer/Prairie Co.'s	23176	21690	24693	10664	12169	9479	9493	7057	9073	1403	1473	1951	1362	991	966
Daniels County	1011	1622	N/A	442	1622	N/A	378	0	N/A	140	0	N/A	51	0	N/A
Dawson/Wibaux Co.'s	11469	8982	9077	8024	6060	8272	2026	1799	0	777	695	805	642	428	0
Fallon/Carter Co.'s	5180	4475	4538	0	4128	4261	0	0	0	0	135	173	1	212	104
Garfield/McCone Co.'s	4765	7943	3559	768	3474	2544	0	579	389	0	81	100	1	472	526
Phillips County	7741	6642	7190	5273	4777	5363	173	181	247	227	235	227	194	354	258
Powder River County	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Richland County	13606	10643	12923	9133	6892	7713	3166	2209	3183	607	554	651	539	663	934
Roosevelt County	15661	18013	14874	9547	12418	9188	3452	3276	2667	765	743	863	1897	1576	2156
Rosebud/Treasure Co.'s	5608	5189	4542	2523	2682	2435	230	238	321	37	54	59	227	180	355
Sheridan County	7799	6977	6603	5763	4718	4660	1528	1782	1425	248	290	335	260	187	183
Valley County	15748	13178	11773	10884	8900	8167	2904	1460	0	881	907	980	1079	1911	1131
TOTAL	111,764	105,354	99,772	63,021	67,840	62,082	23,350	18,581	17,305	5085	5167	6144	6253	6974	6613

* The categories--Medical, Surgical, Maternity, Pediatrics--are not exhaustive; the total figure, therefore, may exceed the sum of the figures in the four categories.

TRENDS IN NUMBER OF HOSPITAL SURGICAL PROCEDURES BY SERVICE AREA

EASTERN MONTANA - 1972 THROUGH 1974

SERVICE AREA	TOTAL			MAJOR			MINOR		
	1972	1973	1974	1972	1973	1974	1972	1973	1974
Custer/Prairie Co.'s	1664	1515	1509	557	569	571	1107	946	938
Daniels County	71	55	N/A	25	34	N/A	46	21	N/A
Dawson/Wibaux Co.'s	490	405	418	236	193	207	254	212	211
Fallon/Carter Co.'s	129	112	3*	10	47	0*	119	65	3*
Garfield/McCone Co.'s	226	178	172	65	39	48	161	139	124
Phillips County	68	61	96	7	16	12	61	45	84
Powder River County	0	0	0	0	0	0	0	0	0
Richland County	866	857	1044	304	256	290	562	601	754
Roosevelt County	650	525	360	361	303	238	289	222	122
Rosebud/Treasure Co.'s	59	154	175	5	17	5	54	137	170
Sheridan County	251	288	238	141	166	136	110	122	102
Valley County	755	731	739	261	248	257	494	483	482
TOTAL	5229	4881	4754	1972	1888	1764	3257	2993	2990

* Dahl Memorial Hospital not reporting.

TRENDS IN NUMBER OF HOSPITAL OUTPATIENT VISITS BY SERVICE AREA*

EASTERN MONTANA - 1972 THROUGH 1974

SERVICE AREA	TOTAL VISITS			CLINIC			EMERGENCY		
	1972	1973	1974	1972	1973	1974	1972	1973	1974
Custer/Prairie Co.'s	8540	9107	10,712	3204	478	1066	3492	3278	3647
Daniels County	933	995	175	888	920	N/A	45	75	175
Dawson/Wibaux Co.'s	2932	1988	2398	1749	1551	1114	1183	437	1284
Fallon/Carter Co.'s	3482	1538	3417	2362	549**	2434	1139	989	983
Garfield/McCone Co.'s	1047	985	930	278	300	250	769	685	680
Phillips County	825	1082	1348	600	854	974	225	228	374
Powder River County	0	0	0	0	0	0	0	0	0
Richland County	2468	2375	4244	33	1622	3252	635	753	992
Roosevelt County	6764	7421	7785	5856	5455	4541	908	1966	3244
Rosebud/Treasure Co.'s	1211	1336	1524	N/A	N/A	N/A	N/A	N/A	N/A
Sheridan County	362	393	492	N/A	N/A	N/A	362	393	492
Valley County	2859	3424	3058	2674	3217	2866	185	207	192
TOTAL	31,423	31,650	36,083	17,644	14,946	16,497	8,943	9,011	12,063

* The service areas are not exhaustive, the total figures, therefore, may exceed the sum of the figures in the two areas.

** Dahl Memorial Hospital not reporting.

TRENDS IN NUMBER OF HOSPITAL LABORATORY SERVICES
BY SERVICE AREA
EASTERN MONTANA
1964 & 1969 THROUGH 1974

SERVICE AREA	1964	1969	1970	1971	1972	1973	1974
Custer/Prairie Co.'s	N/A	45,040	43,623	44,566	46,070	48,886	42,610
Daniels County	N/A	------	------→	3,366	4,889	4,093	N/A
Dawson/Wibaux Co.'s	N/A	------	------	------	------	------	------→
Fallon/Carter Co.'s	N/A	------	------	------→	7,063	6,970	6,977
Garfield/McCone Co.'s	N/A	------	------	------	------	------	------→
Phillips County	N/A	------	------	------→	4,714	3,144	2,355
Powder River County	0	0	0	0	0	0	0
Richland County	N/A	------	------→	11,541	10,648	18,042	32,403
Roosevelt County	N/A	------	------	------→	8,578	18,306	1,940
Rosebud/Treasure Co.'s	N/A	------	------	------	------	------	------→
Sheridan County	N/A	------→	5,390	4,981	4,754	5,099	N/A
Valley County	N/A	------	------	------→	27,881	25,149	27,196
TOTAL		45,040	49,013	24,454	114,597	129,419	113,481

Source: John Short & Associates, Inc., Acute Care Facilities Survey, January, 1975

TRENDS IN NUMBER OF HOSPITAL RADIOLOGY SERVICES
BY SERVICE AREA
EASTERN MONTANA
1964 & 1969 THROUGH 1974

SERVICE AREA	1964	1969	1970	1971	1972	1973	1974
Custer/Prairie Co.'s	N/A	5936	5129	5114	5282	6715	5655
Daniels County	N/A	→	→	→	→	513	496
Dawson/Wibaux Co.'s	N/A	→	→	2349	3935	2922	3397
Fallon/Carter Co.'s	N/A	→	→	→	→	→	→
*Garfield/McCone Co.'s	N/A	1196	1126	890	892	842	798
Phillips County	N/A	→	→	→	→	255	350
Powder River County	0	0	0	0	0	0	0
Richland County	N/A	→	→	2538	2447	2573	4475
Roosevelt County	N/A	→	→	→	→	500	557
Rosebud/Treasure Co.'s	N/A	→	→	→	→	→	→
Sheridan County	N/A	→	→	→	→	→	→
Valley County	N/A	→	→	→	4882	1858	2778
TOTAL		7132	6255	10,891	17,438	16,178	18,506

Source: John Short & Associates, Inc., Acute Care Facilities Survey, January, 1975

PATIENT ORIGIN STUDY
PERCENTAGE OF HOSPITAL PATIENTS
BY EASTERN MONTANA HOSPITAL AND ORIGIN

Service Area:	Custer/Prairie			Dawson/Wibaux	Fallon/Carter		Garfield/McCone		Richland	Roosevelt
ORIGINS	Holy Rosary	Vets. Admin.	Prairie Comm	Glendive Comm.	Fallon Memor.	Dahl Memor.	Garfield County	McCone County	Community Memor.	Roosevelt Memor.
Custer/Prairie	65.	17.	87.	1.	1.	2.				1.
Daniels										
Dawson/Wibaux	6.	6.	8.	84.	2.	1.		15.	6.	
Fallon/Carter	8.	4.			80.	86.				
Garfield/McCone	3.	2.		1.			87.	81.	1.	
Phillips										
Powder River	4.	1.				1.				
Richland	1.	3.							77.	
Roosevelt		6.							5.	96.
Rosebud/Treasure	8.	6.								
Sheridan		1.				1.				1.
Valley		3.								
EASTERN REGION TOTAL	95.	49.	95.	86.	83.	91.	87.	96.	89.	98.
NORTH CENTRAL REGION TOTAL							4.			1.
WESTERN REGION TOTAL				1.						
SOUTHWESTERN REGION TOTAL		1.				1.				
SOUTH CENTRAL REGION TOTAL		30.	1.							
OUT-OF-STATE TOTAL	4.	17.	3.	9.	18.	9.	9.	3.	5.	

Derived from Div. of Comprehensive Health Planning, Montana Dept. of Health & Environmental Sciences, October, 1973, Patient Origin Study, 1970 - 1971

LONG TERM CARE FACILITIES

TRENDS IN NUMBER OF NURSING HOME BEDS
BY SERVICE AREA AND BED TYPE
EASTERN MONTANA
1965 & 1969 THROUGH 1974

SERVICE AREA (S.A.) AND BED TYPE	1965	1969	1970	1971[1]		1972		1973		1974		Percent Increase/Decrease	
	No.	No.	No.	No.	% of S.A.	No.	% of S.A.	No.	% of S.A.	No.	% of S.A.	1974 over 1965	1974 over 1970
Custer/Prairie Co.													
Skilled	137	21	70	75	57.	65	50.	70	41.	92	46.		
Int. A				56	43.	61	47.	98	57.	105	52.		
Int. B				0		5	4.	3	2.	3	1.		
Total	137	21	70	131	100.	131	100.	171	100.	200	100.	46.	186.
Daniels County													
Skilled	19	19	19	19	100.	19	100.	19	100.	19	100.		
Int. A				0		0		0		0			
Int. B				0		0		0		0			
Total	19	19	19	19	100.	19.	100.	19.	100.	19	100.	0.	0.
Dawson/Wibaux Co.													
Skilled	37	37	25	25	51.			25	51.	25	51.		
Int. A				24	49.			0					
Int. B				0				24	49.	24	49.		
Total	37	37	25	49	100.	N/A		49	100.	49	100.	32.	96.
Fallon/Carter Co.													
Skilled	45	45	39	39	100.	43	100.	43	100.	53	100.		
Int. A				0		0		0		0			
Int. B				0		0		0		0			
Total	45	45	39	39	100.	43	100.	43	100.	53	100.	18.	36.
Garfield/McCone Co.													
Skilled	0	0	6			5	25.	4	33.	4	33.		
Int. A						15	75.	8	67.	8	67.		
Int. B						0		0		0			
Total	0	0	6	N/A	N/A	20	100.	12	100.	12	100.	--	100.

TRENDS IN NUMBER OF NURSING HOME BEDS
BY SERVICE AREA AND BED TYPE
EASTERN MONTANA
1965 & 1969 THROUGH 1974 (cont.)

SERVICE AREA (S.A.) AND BED TYPE	1965	1969	1970	1971[1]		1972		1973		1974		Percent Increase/Decrease	
	No.	No.	No.	No.	% of S.A.	No.	% of S.A.	No.	% of S.A.	No.	% of S.A.	1974 over 1965	1974 over 1970
Phillips County													
Skilled	31	0	34			0		0		0			
Int. A				35	100.	35	100.	35	100.	35	100.		
Int. B				0		0		0		0			
Total	31	0	34	35	100.	35	100.	35	100.	35	100.	13.	3.
Powder River Co.													
Skilled													
Int. A													
Int. B													
Total	0	0	0	0	0.	0	0.	0	0.	0	0.	0.	0.
Richland County													
Skilled	39	39	24	20	31.			40	47.	40	47.		
Int. A				44	69.			40	47.	40	47.		
Int. B				0				5	6.	5	6.		
Total	39	39	24	64	100.	N/A		85	100.	85	100.	118.	254.
Roosevelt County													
Skilled	65	59	59	20	25.	20	25.	20	25.	20	25.		
Int. A				60	75.	39	49.	39	49.	39	49.		
Int. B				0		21	26.	21	26.	21	26.		
Total	65	59	59	80	100.	80	100.	80	100.	80	100.	23.	36.
Rosebud/Treasure Co.													
Skilled	25	25	25	21	100.	25	100.	25	100.	39	100.		
Int. A				0		0		0		0			
Int. B				0		0		0		0			
Total	25	25	25	21	100.	25	100.	25	100.	39	100.	56.	56.

TRENDS IN NUMBER OF NURSING HOME BEDS
BY SERVICE AREA AND BED TYPE
EASTERN MONTANA
1965 & 1969 THROUGH 1974 (cont.)

SERVICE AREA (S.A.) AND BED TYPE	1965	1969	1970	1971[1]		1972		1973		1974		Percent Increase/Decrease	
	No.	No.	No.	No.	% of S.A.	No.	% of S.A.	No.	% of S.A.	No.	% of S.A.	1974 over 1965	1974 over 1970
Sheridan County													
Skilled	27	27	27	27	100.	27	100.	33	100.	33	100.		
Int. A				0		0		0		0			
Int. B				0		0		0		0			
Total	27	27	27	27	100.	27	100.	33	100.	33	100.	22.	22.
Valley County													
Skilled	0	74	60	54	73.	40	67.	40	67.	40	67.		
Int. A				20	27.	20	33.	20	33.	20	33.		
Int. B				0		0		0		0			
Total	0	74	60	74	100.	60	100.	60	100.	60	100.	--	0.
SKILLED	425	375	388	300	56.	244	55.	319	52.	365	55.		
INT. A				239	44.	170	39.	240	39.	247	37.		
INT. B				0	0.	26	6.	53	9.	53	8.		
TOTAL	425	375	388	539	100.	440	100.	612	100.	665	100.	56.	71.

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1. Bed types were not recorded for 1965-70. For 1971, the beds types "Int. A" and "Int. B" were not recorded; the 1971 bed types "Pers/Int" is shown here as "Int. A".

TRENDS IN NUMBER OF NURSING HOME ADMISSIONS
BY SERVICE AREA AND BED TYPE
EASTERN MONTANA
1965 & 1969 THROUGH 1974

SERVICE AREA AND BED TYPE	1965	1969	1970	1971[1]	1972	1973	1974	Percent Increase/Decrease	
	No.	No.	No.	No.	No.	No.	No.	1974 over 1965	1974 over 1970
Custer/Prairie Co.									
Skilled	73	101	136	98	51	64	98		
Int. A				78	46	107	96		
Int. B					3	1	0		
Total	73	101	136	176	100	172	194	166.	43.
Daniels County									
Skilled			40	3	12				
Int. A				50	12				
Int. B				0	0				
Total	N/A	N/A	40	53	24	N/A	N/A	N/A	N/A
Dawson/Wibaux Co.									
Skilled	13	38		26	1	8	12		
Int. A				33	9	10	11		
Int. B				0	0	0	0		
Total	13	38	N/A	59	10	18	23	77.	N/A
Fallon/Carter Co.									
Skilled	14	75	96	59	26	57	36		
Int. A				9	9	21	41		
Int. B						2	3		
Total	14	75	96	68	35	80	80	471.43	-17.
Garfield/McCone Co.									
Skilled				13	1	0	0		
Int. A				3	9	2	6		
Int. B				0	0	0	0		
Total	0	0	N/A	16	10	2	6	--	N/A

TRENDS IN NUMBER OF NURSING HOME ADMISSIONS
BY SERVICE AREA AND BED TYPE
EASTERN MONTANA
1965 & 1969 THROUGH 1974 (cont.)

SERVICE AREA AND BED TYPE	1965 No.	1969 No.	1970 No.	1971[1] No.	1972 No.	1973 No.	1974 No.	Percent Increase/Decrease 1974 over 1965	Percent Increase/Decrease 1974 over 1970
Phillips County									
Skilled	25		50	0	0	0	0		
Int. A				57	35	2	9		
Int. B				0	0	7	6		
Total	25	0	50	57	35	9	15	40.	-70.
Powder River Co.									
Skilled									
Int. A									
Int. B									
Total	0	0	0	0	0	0	0	.00	.00
Richland County									
Skilled	21	28	19	16	10	19	5		
Int. A				93	10	36	34		
Int. B				0	3	5	3		
Total	21	28	19	109	23	60	42	100.	121.
Roosevelt County									
Skilled	20	84	77	43	0	24	46		
Int. A				69	8	24	26	--	--
Int. B				0	4	11	14		
Total	20	84	77	112	12	59	86	330.	12.
Rosebud/Treasure County									
Skilled	45	33	42	39	14	12			
Int. A				0	0	12			
Int. B				0	0	0			
Total	45	33	42	39	14	24	N/A	N/A	N/A

TRENDS IN NUMBER OF NURSING HOME ADMISSIONS
BY SERVICE AREA AND BED TYPE
EASTERN MONTANA
1965 & 1969 THROUGH 1974 (cont.)

SERVICE AREA AND BED TYPE	1965	1969	1970	1971[1]	1972	1973	1974	Percent Increase/Decrease	
	No.	No.	No.	No.	No.	No.	No.	1974 over 1965	1974 over 1970
Sheridan County									
Skilled		70		47	20	16	14		
Int. A				0	0	5	3		
Int. B				0	0	0	0		
Total	N/A	70	N/A	47	20	21	17	N/A	N/A
Valley County									
Skilled		76	54	66	8	5	3		
Int. A				11	16	6	8		
Int. B				0	0	0	0		
Total	0	76	54	77	24	11	11	--	-80.
SKILLED	211	505	514	410	143	205	214		
INT. A				403	127	225	234		
INT. B				0	19	26	26		
TOTAL	211	505	514	813	289	456	474	125.	-8.

1. Bed types were not recorded for 1965-70. For 1971, the bed types "Int. A" and "Int. B" were not recorded; the 1971 bed type "Pers/Int" is shown here as "Int. A".

TRENDS IN NUMBER OF NURSING HOME PATIENT DAYS
BY SERVICE AREA AND BED TYPE
EASTERN MONTANA
1965 & 1969 THROUGH 1974

SERVICE AREA AND BED TYPE	1965	1969	1970	1971[1]	1972	1973	1974	Percent Increase/Decrease	
	No.	No.	No.	No.	No.	No.	No.	1974 over 1965	1974 over 1970
Custer/Prairie Co.									
Skilled	41,924	29,605	31,302	24,603	23,919	16,277	22,413		
Int. A				21,501	21,449	32,247	38,452		
Int. B				0	1,464	881	496		
Total	41,924	29,605	31,302	46,104	46,832	49,405	61,361	46.	33.
Daniels County									
Skilled		9,730	9,678	1,095	3,730	5,070			
Int. A				8,395	5,744	5,246			
Int. B				0	0	0			
Total	N/A	9,730	9,678	9,490	9,474	10,316	N/A	N/A	N/A
Dawson/Wibaux Co.									
Skilled	13,171	11,268		8,943	8,943	9,035	9,110		
Int. A				8,896	8,896	8,660	8,715		
Int. B				0	0	0	0		
Total	13,171	11,268	N/A	17,839	17,839	17,695	17,825	35.	N/A
Fallon/Carter Co.									
Skilled	4,083	9,926	10,751	10,534	9,595	8,733	8,340		
Int. A				2,273	2,528	4,579	5,811		
Int. B				0	0	358	440		
Total	4,083	9,926	10,751	12,807	12,123	13,670	14,600	258.	36.
Garfield/McCone Co.									
Skilled				5,084	107	365	365		
Int. A				1,095	3,213	2,972	6,205		
Int. B				0	0	0	0		
Total	0	0	N/A	6,179	3,320	3,337	6,570	--	N/A

TRENDS IN NUMBER OF NURSING HOME PATIENT DAYS
BY SERVICE AREA AND BED TYPE
EASTERN MONTANA
1965 & 1969 THROUGH 1974 (cont.)

SERVICE AREA AND BED TYPE	1965 No.	1969 No.	1970 No.	1971[1] No.	1972 No.	1973 No.	1974 No.	Percent Increase/Decrease 1974 over 1965	Percent Increase/Decrease 1974 over 1970
Phillips County									
Skilled	9,146		10,444	1,295	0	0	0		
Int. A				12,014	4,415	5,646	8,569		
Int. B				0	8,360	6,437	3,815		
Total	9,146	0	10,444	13,309	12,775	12,083	12,384	35.	19.
Powder River Co.									
Skilled									
Int. A									
Int. B									
Total	0	0	0	0	0	0	0	.00	.00
Richland County									
Skilled	11,852	11,143	4,123	4,691	4,868	6,742	6,386		
Int. A				18,491	10,777	16,346	19,166		
Int. B					7,864	3,853	3,456		
Total	11,852	11,143	4,123	23,182	23,509	26,941	29,008	145.	604.
Roosevelt County									
Skilled	24,292	21,517	17,284	7,965	3,346	4,075	5,600		
Int. A				20,092	16,058	15,887	15,152		
Int. B					5,223	8,928	8,471		
Total	24,292	21,517	17,284	28,057	24,627	28,860	29,223	20.	4.
Rosebud/Treasure Co.									
Skilled	9,129	9,039	8,936	6,035	4,441	4,162	N/A		
Int. A				2,920	4,545	4,644	N/A		
Int. B					0	0			
Total	9,129	9,039	8,936	8,955	8,986	8,806	12,159	33.	36.

TRENDS IN NUMBER OF NURSING HOME PATIENT DAYS
BY SERVICE AREA AND BED TYPE
EASTERN MONTANA
1965 & 1969 THROUGH 1974 (cont.)

SERVICE AREA AND BED TYPE	1965 No.	1969 No.	1970 No.	1971[1] No.	1972 No.	1973 No.	1974 No.	Percent Increase/Decrease 1974 over 1965	Percent Increase/Decrease 1974 over 1970
Sheridan County									
Skilled		9,650		6,975	7,373	9,583	9,977		
Int. A				3,045	2,410	2,087	2,097		
Int. B					0	0	0		
Total	N/A	9,650	N/A	10,020	9,783	11,670	12,074	N/A	N/A
Valley County									
Skilled		3,617	9,901	15,756	12,162	10,585	8,047		
Int. A				4,437	8,637	10,059	12,685		
Int. B				0	0	0	153		
Total	N/A	3,617	9,901	20,193	20,799	20,644	20,885	N/A	111.
SKILLED	113,597	115,495	102,419	92,976	78,484	74,627	70,247		
INT. A				103,159	88,672	158,343	116,852		
INT. B				0	22,911	20,457	16,831		
TOTAL	113,597	115,495	102,419	196,135	190,067	203,427	216,089	90.	111.

1. Bed types were not recorded for 1965-70. For 1971, the bed types "Int. A" and "Int. B" were not recorded; the 1971 bed type "Pers/Int" is shown here as "Int. A".

TRENDS IN NURSING HOME OCCUPANCY RATES BY SERVICE AREA AND BED TYPE
EASTERN MONTANA
1965 & 1969 THROUGH 1974

SERVICE AREA AND BED TYPE	1965		1969		1970		1971[1]		1972		1973		1974		Bed Usage Percent Increase/Decrease	
	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	1974 over 1965	1974 over 1970
Custer/Prairie Co.																
Skilled	137	84.	21	386.	70	123.	75	90.	65	101.	70	64.	92	67.		
Int. A							56	105.	61	96.	98	90.	105	100.		
Int. B							0	0	5	80.	3	80.	3	45.		
Total	137	84.	21	386.	70	123.	131	96.	131	98.	171	79.	200	84.	100.	95.
Daniels County																
Skilled	19	N/A	19	140.	19	140.	19	16.	19	54.	19	73.	19	N/A		
Int. A							0	--	0		0		0			
Int. B							0		0		0		0			
Total	19	N/A	19	140.	19	140.	19	137.	19	137.	19	149.	19	N/A	N/A	N/A
Dawson/Wibaux Co																
Skilled	37	98.	37	83.	25	N/A	25	98.			25	99.	25	100.		
Int. A							24	102.			0					
Int. B							0				24		24	99.		
Total	37	98.	37	83.	25	N/A	49	100.	N/A	N/A	49	99.	49	100.	35.	N/A
Fallon/Carter Co.																
Skilled	45	25.	45	60.	39	76.	39	74.	43	61.	43	56.	53	43.		
Int. A							0	--	0		0		0	0		
Int. B							0	0.	0		0		0	0		
Total	45	25.	45	60.	39	76.	39	90.	43	77.	43	87.	53	75.	253.	34.
Garfield/McCone Co.																
Skilled	0		0		6				5	6.	4	25.	4	25.		
Int. A									15	59.	8	102.	8	212.		
Int. B													0	0.		
Total	0	0.	0	0.	6	N/A	N/A	N/A	20	45.	12	76.	12	150.	--	N/A

TRENDS IN NURSING HOME OCCUPANCY RATES BY SERVICE AREA AND BED TYPE
EASTERN MONTANA
1965 & 1969 THROUGH 1974 (cont.)

SERVICE AREA AND BED TYPE	1965		1969		1970		1971[1]		1972		1973		1974		Bed Usage Percent Increase/Decrease	
	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	1974 over 1965	1974 over 1970
Phillips County																
Skilled	31	81.	0		34	84.	0	--					0	0.		
Int. A							35	94.	35	35.	35	44.	35	67.		
Int. B													0	0.		
Total	31	81.	0	0.	34	84.	35	104.	35	100.	35	95.	35	97.	35.	19.
Powder River Co.																
Skilled																
Int. A																
Int. B																
Total	0	0.	0	0.	0	0.	0	0.	0	0.	0	0.	0	0.	0.	0.
Richland County																
Skilled	39	83.	39	78.	24	47.	20	64.			40	46.	40	44.		
Int. A							44	115.			40	112.	40	131.		
Int. B											5	211.	5	189.		
Total	39	83.	39	78.	24	47.	64	99.	N/A	N/A	85	87.	85	93.	144.	601.
Roosevelt County																
Skilled	65	102.	59	100.	59	80.	20	109.	20	46.	20	56.	20	77.		
Int. A							60	92.	39	113.	39	111.	39	106.		
Int. B									21	68.	21	116.	21	111.		
Total	65	102.	59	100.	59	80.	80	96.	80	84.	80	99.	80	100.	21.	69.
Rosebud/Treasure Co.																
Skilled	25	100.	25	99.	25	98.	25	66.	25	49.	25	46.	39	N/A		
Int. A								--								
Int. B																
Total	25	100.	25	99.	25	98.	25	98.	25	98.	25	107.	39	N/A	N/A	N/A

TRENDS IN NURSING HOME OCCUPANCY RATES BY SERVICE AREA AND BED TYPE
EASTERN MONTANA
1965 & 1969 THROUGH 1974 (cont.)

SERVICE AREA AND BED TYPE	1965		1969		1970		1971[1]		1972		1973		1974		Bed Usage Percent Increase/Decrease	
	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	No. of Beds	% of Occ.	1974 over 1965	1974 over 1970
Sheridan County																
Skilled	27		27	98.	32		27	71.	27	100.	33	80.	33	83.		
Int. A								--								
Int. B																
Total	27	N/A	27	98.	32	N/A	27	102.	27	100.	33	97.	33	100.	N/A	N/A
Valley County																
Skilled	0		74	13.	60	45.	54	80.	40	83.	40	72.	40	55.		
Int. A							20	61.	20	118.	20	138.	20	174.		
Int. B														0		
Total	0	N/A	74	13.	60	45.	74	75.	60	95.	60	94.	60	95.	N/A	111.
SKILLED							304	84.	244	88.	319	64.	365	53.		
INT. A							239	118.	170	143.	240	125.	247	130.		
INT. B							0	0.	26	241.	53	106.	53	87.		
TOTAL	425	73.	375	84.	393	71.	543	99.	440	118.	612	92.	665	84.	80.	100.

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1. Bed types were not recorded for 1965-70. For 1971, the bed types "Int. A" and "Int. B" were not recorded; the 1971 bed type "Pers/Int" is shown here as "Int A".

NURSING HOME PROFILE
EASTERN MONTANA
JANUARY, 1975

EASTERN MONTANA NURSING HOMES	No. of Patients	Sex				Mean Age	Mean Length of Stay (years)
		Male		Female			
		No.	%	No.	%		
Carter County							
Dahl Memorial	18	8	44.	10	56.	80.1	.8
Custer County							
Custer Co. Rest	104	33	32.	71	68.	79.3	4.0
Friendship Villa	60	34	57.	27	43.	76.7	1.2
V.A.	21	21	100.	0	0.	74.4	1.3
Daniels County							
Daniels Memorial	32	7	22.	25	78.	84.8	.9
Dawson County							
Glendive Community	49	21	43.	28	57.	79.8	2.5
Fallon County							
Fallon Memorial	32	9	28.	23	72.	71.2	.8
Garfield County							
Garfield County Home	10	5	50.	5	50.	84.9	2.7
McCone County	0	0	0.	0	0.	0.	0.
Phillips County							
Malta Nursing	34	17	50.	17	50.	78.3	4.2
Powder River County	0	0	0.	0	0.	0.	0.
Prairie County							
Prairie Community	10	3	30.	7	70.	83.9	2.4

NURSING HOME PROFILE
EASTERN MONTANA
JANUARY, 1975 (Cont.)

EASTERN MONTANA NURSING HOMES	No. of Patients	Sex				Mean Age	Mean Length of Stay (years)
		Male		Female			
		No.	%	No.	%		
Richland County							
Richland Homes, Inc.	84	22	26.	62	74.	81.0	3.5
Roosevelt County							
Community Hosp. Nrsg.	16	7	44.	9	56.	70.7	1.0
Faith Lutheran	63	30	48.	33	52.	81.6	.8
Rosebud County							
Rosebud Comm. Nrsg.	38	15	39.	23	61.	78.2	2.6
Sheridan County							
Sheridan Memorial	34	10	29.	24	71.	78.6	2.2
Treasure County	0	0	0.	0	0.	0.	0.
Valley County							
Valley View Home	58	24	41.	33	57.	80.7	2.8
Wibaux County	0	0	0.	0	0.	0.	0.
TOTAL	663	266	40.	397	60.	79.2	2.8

Source: John Short & Associates, Inc., Nursing Home Survey, January, 1975

PATIENT ORIGIN STUDY
PERCENTAGE OF LONG TERM CARE FACILITIES PATIENTS BY EASTERN MONTANA NURSING HOME AND ORIGIN

Service Area:	Custer/Prairie				Daniels	Dawson/Wibaux	Fallon/Carter	
ORIGINS	Custer Co. Rest Home	Friendship Villa	Vets Admin.	Prairie Comm.	Daniels Memor.	Glendive Comm. Hospital	Fallon Memor.	Dahl Memor. Nursing
Custer/Prairie	74.	58.	14.	100.			3.	
Daniels					97.			
Dawson/Wibaux	4.	10.	5.			88.		11.
Fallon/Carter							63.	56.
Garfield/McCone						4.		
Phillips								
Powder River	6.	2.						
Richland	1.	3.	5.			4.		
Roosevelt	1.	3.						
Rosebud/Treasure	3.	2.	5.					
Sheridan		2.						6.
Valley		5.	5.					
EASTERN REGION TOTAL	88.	85.	33.	100.	97.	96.	66.	73.
NORTH CENTRAL REGION TOTAL			5.					6.
WESTERN REGION TOTAL			5.					
SOUTHWESTERN REGION TOTAL			14.				13.	6.
SOUTH CENTRAL REGION TOTAL		3.	24.					
OUT-OF-STATE TOTAL	12.	12.	19.		3.	4.	21.	15.

Source: John Short & Associates, Inc., Long Term Care Facilities Survey, January, 1975

PATIENT ORIGIN STUDY
PERCENTAGE OF LONG TERM CARE FACILITIES PATIENTS BY EASTERN MONTANA NURSING HOME AND ORIGIN (cont.)

Service Area:	Garfield/McCone	Phillips	Richland	Roosevelt		Rosebud/Treasure	Sheridan	Valley
ORIGINS	Garfield Comm. Home and Hosp.	Malta Nrsg. Home	Richland Homes	Faith Luther. Home	Comm. Hosp. Nrsg. Home	Rosebud Comm.	Sheridan Memor.	Valley View Nrsg.
Custer/Prairie		6.	1.			3.		
Daniels							3.	
Dawson/Wibaux			6.					
Fallon/Carter			1.					
Garfield/McCone	100.			27.				
Phillips		74.		2.				7.
Powder River								
Richland			73.	3.	6.	3.		
Roosevelt			14.	58.	88.			3.
Rosebud/Treasure						87.		
Sheridan			1.	2.			97.	
Valley		12.		3.				88.
EASTERN REGION TOTAL	100.	92.	96.	95.	94.	93.	100.	98.
NORTH CENTRAL REGION TOTAL		3.				5.		
WESTERN REGION TOTAL				2.				
SOUTHWESTERN REGION TOTAL					6.			
SOUTH CENTRAL REGION TOTAL		3.	1.					
OUT-OF-STATE TOTAL		2.	3.	3.		2.		2.

Source: John Short & Associates, Inc., Long Term Care Facilities Survey, January. 1975

PATIENT ORIGIN
NURSING HOMES, EASTERN MONTANA
JANUARY, 1975

	No. Reported Origin		Montana Origin			
	Montana	Out of State	County of N.H. Loc.		County other than N.H. Loc.	
			No.	%	No.	%
Carter County						
Dahl Memorial	16	2	10	62.5	6	37.5
Custer County						
Custer County Rest Home	92	12	77	83.7	15	16.3
Friendship Villa	53	13	30	56.9	23	43.4
V.A. Nursing Home	17	4	3	18.0	14	82.0
Daniels County						
Daniels Memorial Nursing Home	31	1	31	100.0	0	0
Dawson County						
Glendive Community Nursing Home	48	2	41	85.4	7	14.6
Fallon County						
Fallon Memorial Hosp. & Nrsg.	25	7	18	72.0	7	28.0
Garfield County						
Garfield Co. Home & Hosp. Assoc.	10	0	9	90.0	1	10.0
McCone County						
Phillips County						
Malta Nursing Home	33	1	25	75.8	8	24.2
Powder River County						
Prairie County						
Prairie Community Hospital	10	0	10	100.0	0	0
Richland County						
Richland Homes, Inc.	82	2	61	74.4	21	25.6
Roosevelt County						
Community Hosp. Nursing Home	16	0	14	87.4	2	12.6
Faith Lutheran Retirement Home	58	2	35	60.0	23	40.0
Rosebud County						
Rosebud Community Nrsg. Home	37	1	30	81.1	7	18.9
Sheridan County						
Sheridan Memorial Nursing Home	34	0	33	97.7	1	3.0
Treasure County						
Valley County						
Valley View Home	57	1	51	89.5	6	10.5
Wibaux County						
TOTAL FOR REGION	619	48	478	77.0	141	23.0

Source: John Short & Associates, Inc., Nursing Home Survey, January, 1975

C. Services

This section analyzes the health services component of Eastern Montana's health care delivery system, focusing on public health, emergency medical services, alcoholism/drug abuse and mental health.

1. Public Health

a. Inventory

Public health seeks to promote and protect the health of its citizenry. The World Health Organization defines health as a state of complete physical, mental and social well-being, not merely the absence of disease.

Local public health departments are concerned with providing three major health services: community, preventative, and environmental. Regarding community health services, it is the function of the local public health department to act as the diagnostician of the community as a whole. Preventative services place a major emphasis on early detection and treatment for purposes of primary prevention, health maintenance and health promotion. Health, safety, comfort and well-being are the objectives of environmental health services. Air and water pollution control, solid waste disposal and food and drug control are some of the state environmental programs which are carried out at the local level. In Eastern Montana these services are mainly carried out by health officers, community (public health) nurses and sanitarians.

Presently there are only three counties in the State (Cascade, Missoula and Lewis and Clark) which offer a full range of public health services in an organized and coordinated public health department, according to the House Joint Resolution 18 (HJR 18) Study Committee which studied local public health services in Montana. No such unit exists in Eastern Montana.

There seems to be a general lack of awareness and/or misconceptions about public health on the part of the public and even some professionals. Public or community health services are not only for the poor. Vision and hearing screening, immuzizations and sanitarian services relating to water, milk and food supplies protect everyone. Only a fraction of the services are chiefly offered to low-income persons. Another misconception is that health departments are concerned only with communicable disease control. They are concerned with all aspects of community well-being. A commitment to cooperation rather than competition between public health departments and private medicine is necessary toward the maintenance of health; they each have needed services to offer.

A fourth misconception about public health is that local departments and health officers have the power to enforce State health laws and regulations; a local department can only recommend enforcement procedures to the State Department of Health and Environmental Sciences or to the local county attorney.

There are currently 10.5 public health nurses serving twelve of the seventeen counties. Nine are full-time public health nurses and three are part-time public health nurses in the region. Five counties (Carter, Daniels, Fallon, Prairie and Treasure) have no community nursing services. Tables 17, 18 and 19 list the public health nurses in Eastern Montana.

Three family planning clinics operate in three counties: Custer, Dawson and Phillips. At the present time, only one home health agency exists in Eastern Montana, and this is in Richland County. Although the community nurses most often do the school nursing, Dawson County has a full-time school nurse and Valley County (Opheim) has a school nurse two days per week. Map II shows all nursing services (exclusive of facility and office based nurses) available to Eastern Montanans.

TABLE 17

PUBLIC HEALTH NURSE INVENTORY BY COUNTY
EASTERN MONTANA

COUNTY	1973 POPULATION	NUMBER OF P.H. NURSES	POPULATI PER P.H. NURS
Carter	1,800		
Custer	11,300	1	11,300
Daniels	3,100		
Dawson	10,900	1	10,900
Fallon	3,800		
Garfield	1,800	.5*	
McCone	2,800	.5*	
Phillips	5,200	1	5,200
Powder River	2,100	1	2,100
Prairie	2,000		
Richland	9,700	1	9,700
Roosevelt**	10,000	1	10,000
Rosebud**	6,600	1	6,600
Sheridan	5,500	1	5,500
Treasure	1,100		
Valley	13,300	1	13,300
Wibaux	1,400	.5*	
REGIONAL TOTAL	92,400	10.5	8,800

* .5 refers to part-time public health nurse

**Indian reservations in Roosevelt and Rosebud Counties are also served by Indian Health Service

TABLE 18

PUBLIC HEALTH NURSE INVENTORY BY SERVICE AREA EASTERN MONTANA

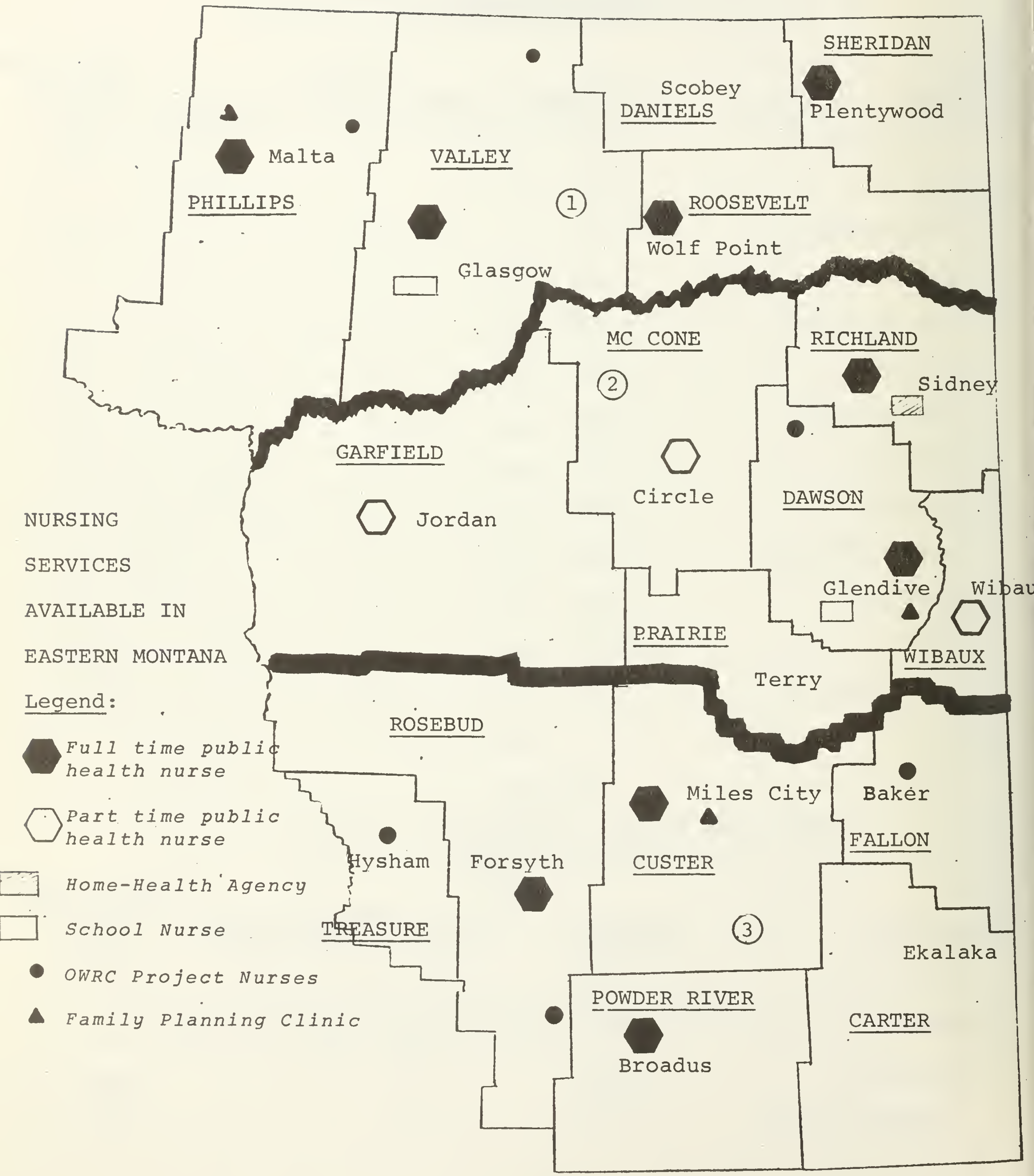
SERVICE AREA	1973 POPULATION	NUMBER OF PUBLIC HEALTH NURSES	POPULATION PER P.H. NURSES
Custer/Prairie	16,800	1	16,800
Daniels	3,600		
Dawson/Wibaux	15,600	1.5	10,400
Fallon/Carter	6,200		
Garfield/McCone	6,900	1	6,900
Phillips	5,900	1	5,900
Powder River	2,100	1	2,100
Richland	12,500	1	12,500
Roosevelt	12,700	1	12,700
Rosebud/Treasure	12,100	1	12,100
Sheridan	6,200	1	6,200
Valley	18,900	1	18,900
REGIONAL TOTAL	92,400	10.5	8,800

TABLE 19

PUBLIC HEALTH NURSE INVENTORY BY DISTRICT EASTERN MONTANA

DISTRICT	1973 POPULATION	NUMBER OF PUBLIC HEALTH NURSES	POPULATION PER P.H. NURSES
District 1	37,100	4	9,275
District 2	28,600	3.5	8,171
District 3	26,700	3	8,900
REGIONAL TOTAL	92,400	10.5	8,800

MAP II


NURSING
SERVICES
AVAILABLE IN
EASTERN MONTANA
Legend:
⬢ Full time public health nurse
⬡ Part time public health nurse
▨ Home-Health Agency
▭ School Nurse
● OWRC Project Nurses
▲ Family Planning Clinic
PHILLIPS
Malta
VALLEY
Glasgow
①
DANIELS
Scobey
SHERIDAN
Plentywood
ROOSEVELT
Wolf Point
MC CONE
②
Circle
RICHLAND
Sidney
GARFIELD
Jordan
DAWSON
Glendive
Wibau
WIBAUX
PRAIRIE
Terry
ROSEBUD
Forsyth
TREASURE
Hysham
CUSTER
Miles City
③
FALLON
Baker
CARTER
Ekalaka
POWDER RIVER
Broadus

In Region I as a whole, there is one public health nurse for every 8,800 persons. The ratio recommended by the HJR 18 report for a community nursing service which stresses prevention and maintenance is one nurse for every 4,000 persons, and if the area is sparsely populated, the recommended ratio is one nurse per 3,000 population. Only Powder River County achieves this recommended ratio of 3,000:1. In Valley County the community nurse serves 13,300 persons. These figures reflect only nurses employed by the local public health department and do not take into account those communities which will be served by the OWRC project nurses (see OWRC Nursing Project under the Manpower section).

There are currently six sanitarians covering all of Eastern Montana, with the exception of Garfield County, which has no coverage (see Table 20). Each sanitarian is responsible for environmental health services covering at least two counties. The sanitarian in Valley County serves Valley and Phillips County--a population of 18,500. Five counties (Dawson, McCone, Prairie, Wibaux and Richland) are served by one sanitarian, i.e., he serves 26,800 people.

TABLE 20

SANITARIAN INVENTORY BY SANITATION DISTRICT
EASTERN MONTANA

SANITATION DISTRICT	1973 POPULATION	NUMBER OF SANITARIANS	POPULATION PER SANITARIAN
Dawson, McCone, Prairie, Richland, Wibaux	26,800	1	26,800
Custer, Carter, Fallon, Powder River	19,000	1	19,000
Roosevelt, Daniels, Sheridan	18,600	1	18,600
Valley, Phillips	18,500	1	18,500
Big Horn, Rosebud, Treasure	18,800	2	9,400
REGIONAL TOTAL	103,500	6	17,250

* Includes population of Big Horn County (11,100) and Garfield County (1,800)

On a Regional basis a sanitarian must serve 17,250 people. The HJR 18 report urges a standard ratio of one sanitarian per 10,000 population. The ratio for Eastern Montana is double that of the recommended ratio.

There are currently seventeen part-time health officers serving the seventeen counties. Although the health officer is responsible to county commissioners and the local health board for the services provided to the county and for the conduct of the health programs, most health officers are private physicians who do not have adequate time to spend on their health officer responsibilities.

The State Department of Health and Environmental Sciences offers additional environmental, nursing, health education and laboratory services to Montana communities. Due to the distance from Helena, these services are minimal.

b. Standards and/or Goals

The prevention of disease and the promotion and maintenance of good health is basic to any public health department. The services of the community health department are developed to meet the individual needs and problems of a particular area. These needs should be identified by statistics, by consumers, and by community health personnel.

The importance of a well-organized public health department is clear. The HJR 18 study states:

> "Citizens are served best when the basic components of public health services, nursing, sanitation and health education are combined within a single agency, are coordinated by a qualified health officer, are supplemented by adequate clerical services, and operate under policies established by a board of health representative of local governments, citizens and health care providers." (page C-15)

Current Montana statutes enabling the creation of local health departments are permissive with respect to the level of services offered by a local health department. As a result, only three counties in the State offer a full range of public health services in an organized and coordinated public health department. The activities, staffing patterns, funding levels and funding sources vary greatly from department to department. The acceptable minimum level of staffing for public health departments in Montana, according to the HJR 18 study, includes: a full-time health officer, one nurse per 4,000 people, one sanitarian per 10,000, a nursing supervisor, a health educator, a dental hygienist/dentist, clerical support and outreach workers.

At the present time it is the community nurses and the sanitarians who carry the bulk of the work load. In essence, these important people are the health department in most communities.

Health officers and health boards are only nominal entities in many counties. Other staffing requirements cited by the HJR 18 report are somewhat unrealistic at this time. Clerical support, outreach workers, dental hygienists or dentists, health educators and nursing supervisors are minimal or non-existent in most Eastern Montana counties. Nursing consultants from the Bureau of Nursing in Helena can offer only minimal support due to time-distance factors. Therefore, it is suggested that a realistic goal for Eastern Montana would be a population per public health nurse of 3,000:1. A level of 13,000 population per sanitarian is suggested as an appropriate goal for the Region. If the public health department combines two or more counties, a full-time health officer is suggested as a desirable goal.

The Montana State Plan for Health promotes the adoption of the concept of regionalization in the delivery of public health services. The twelve multi-county districts within the five Administrative Regions in the State (see Appendix B) would be used as principal local community health jurisdictions.

Employing the multi-county district approach for a unified public health care system, a model for Eastern Montana can be developed. The acceptable minimum level of services to be provided by a local public health department in Eastern Montana should include community health services, preventative health services, and environmental health services.

Major services of each district should include the following:[1]

1. Communicable disease control
2. Full range of family planning services
3. Well-child clinics
4. School health services
    - hearing and vision screening
    - physical and mental health assessment
    - minor treatment
    - counseling, follow-up
5. Crippled children services
6. Maternal health services
    - prenatal and postpartum care
    - counseling
7. Family health assessment clinics
    - multi-phasic screening
    - total immunization series
8. Home health care
9. Dental health care
    - dental prophylaxis
    - oral assessment
10. Migrant health (where appropriate)

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[1] Handbook for Local Health Departments, Montana State Department of Health and Environmental Sciences, 1975, pp. 18-22.

11. Referrals

   - physician
   - dental
   - mental health
   - social services
   - emergency

12. Environmental health

   - water supply
   - air and water pollution
   - sewer and solid waste disposal
   - food contamination and poisoning
   - disasters
   - public building inspection

13. Health education

14. Community organization and cooperation

c. Immediate Needs

Five counties currently have no public health nursing services, these counties are Carter, Daniels, Fallon, Prairie and Treasure. Garfield County has no sanitarian service at this time. The most immediate need, then, with reference to public health services for Eastern Montana is that these six counties be covered by community nursing and sanitarian services.

d. Long Term Objectives

Table 21 indicates the number of public health nurses that will be required in 1985 at both the present and suggested levels. Five more will be required to meet the present

TABLE 21

1985 NEED FOR PUBLIC HEALTH NURSES BY SERVICE AREA EASTERN MONTANA

SERVICE AREAS	FORECASTED 1985 POPULATION	AT PRESENT LEVEL (8,800:1)	AT SUGGEST STANDARD (300
Custer/Prairie	16,800	2	6
Daniels	3,600	1	1
Dawson/Wibaux	15,600	2	5
Fallon/Carter	6,200	1	2
Garfield/McCone	6,900	1	2
Phillips	5,900	1	2
Powder River	2,100	1	1
Richland	12,500	1	4
Roosevelt	12,700	1	4
Rosebud/Treasure	12,100	1	4
Sheridan	6,200	1	2
Valley	18,900	2	6
REGIONAL TOTAL	119,500	15	39

population-to-community-nurse ratio. Should the suggested standard be achieved, a total of 39, or 29 additional, nurses will be necessary. There are six service areas (Custer/Prairie, Dawson/Wibaux, Richland, Roosevelt, Rosebud/Treasure and Valley) which will need at least three additional public health nurses to meet the standard ratio of 3,000:1. Table 22 indicates the 1985 need by district rather than service area. District 3, which presently has only three community nurses, will require an additional ten to meet the suggested standard, due to the substantial population increase projected for this area. An additional four sanitarians will be needed by 1985 (see Table 23).

Legislation is necessary for many of the following long term objectives and the role of the Eastern Montana Areawide Comprehensive Health Planning Council would be mainly to work with and to support the efforts of the State CHP Agency. To gradually develop a unified system of public health departments in Eastern Montana which fits in with the entire State should be encouraged.

The possibility of decentralization of the State Department of Health and Environmental Sciences into the Governor's five Administrative Region (by July 1, 1977) should be investigated.

TABLE 22

1985 NEED FOR PUBLIC HEALTH NURSES BY DISTRICT EASTERN MONTANA

DISTRICT	FORECASTED 1985 POPULATION	AT PRESENT LEVEL (8800:1)	AT SUGGEST STANDARD (300
District 1	47,300	6	15
District 2*	35,000	4	11
District 3*	37,200	5	13
REGIONAL TOTAL	119,500	15	39

* Prairie County included in District 3

TABLE 23

1985 NEED FOR SANITARIANS BY DISTRICT EASTERN MONTANA

DISTRICT	FORECASTED 1985 POPULATION	AT PRESENT LEVEL (17,250:1)	AT SUGGESTED STANDARD(13,000
District 1	47,300	2	4
District 2*	35,000	2	3
District 3*	37,200	2	3
REGIONAL TOTAL	119,500	6	10

* Prairie County included in District 3

Currently there is a public health study being carried on by a health specialist on the staff of the State Commission on Local Government. This study will look into this question and make appropriate recommendations. The staff of the CHP Agency should cooperate fully with this and other such investigations into Montana's public health services.

In order to stimulate the development of acceptable public health units which provide at least the minimum services with approved organizational structures, the provision of additional funds through legislation should be encouraged. The following is an example of the funding formula which could be used:

1. Equal base amount for each county
2. Standard per capita amount to each county
3. Incentive bonus for multi-county local public health units
4. Additional incentive bonus to multi-county public health units that conform to one of the Governor's existing twelve sub-state districts
5. Incentive bonuses would be provided to areas which offer more than the minimum levels of public health services as defined in the HJR 18 report.

The Areawide CHP Council should encourage the strengthening of local and multi-county health boards, local health officers, and citizen input. In many Eastern Montana counties the local health board and the local health officer are only nominal entities. The part-time local health officer, because of the physician shortage in Eastern Montana, is concerned primarily with providing medical services to his private patients, and at times is unable to devote sufficient attention to his responsibilities as a health officer. Written into the legislation defining and providing funds for the delivery of local health services should be the consideration that local boards of health must be composed of consumers, providers and local-elected officials.

The integration and cooperation between the public health department, other agencies, local government officials, and the private health care system should be encouraged.

2. Emergency Medical Services

The Emergency Medical Services (EMS) Bureau of the State Department of Health and Environmental Sciences has just completed a grant application which requests $95,000 to organize and update Montana's Emergency Medical Services System. This 500 page document is a comprehensive study which lists the current EMS resources, proposes EMS standards, and outlines an implementation strategy for improving Montana's EMS capabilities.

For informational purposes, a concise view of the EMS situation in Eastern Montana was compiled from the material presented in the grant application. Those wishing more detailed information are referred to A Conceptual Plan for the Development of Statewide Emergency Medical Services in Montana (available through the EMS Bureau).

The following four components of an EMS system will be addressed here:

Manpower and Training
Communications
Transportation
Facilities

These represent the basic components necessary to provide minimal EMS services. Each component will be inventoried; minimum standards will be discussed and immediate needs and long range goals will be determined for each.

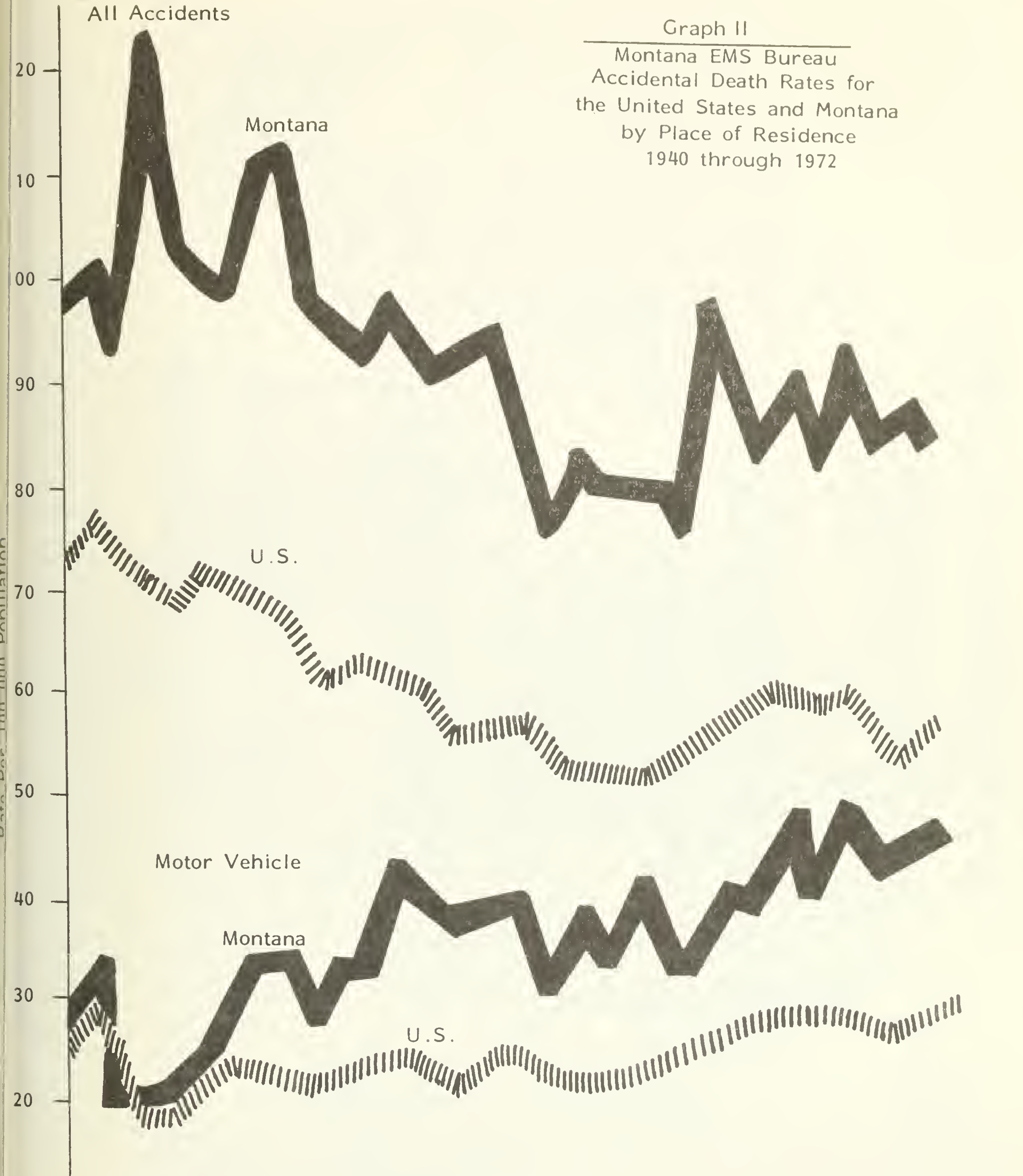
a. Inventory

Montana shows a high accidental death rate when compared to the national experience (see Graph II). A majority of accidents occur outside of the city limits in towns less than 1,000 population. Because of the rural nature of Eastern Montana, the provision of emergency medical services is extremely important for the area. There are many factors which contribute to the high accidental death rate in Montana, including extreme winter driving conditions, rural isolation, lack of medical resources and, in some cases, ineffective emergency services capabilities. Table 24 and Map III indicate accident rates by county in Montana.

A coordinated approach is necessary to reduce this accidental death rate. Well-kept roads, improved drivers' training and accident prevention programs and, most important, a more efficient EMS system will all contribute to reducing death and disability caused by emergency medical situations.

Manpower and Training

Basic to any EMS system are physicians and nurses. The inventories of physicians and nurses included in the Manpower section show that Eastern Montana has a severe



Graph II

Montana EMS Bureau
Accidental Death Rates for
the United States and Montana
by Place of Residence
1940 through 1972

Source: National Center for Health Statistics, Bureau of Records and Statistics, Montana rates for years 1969-1972.

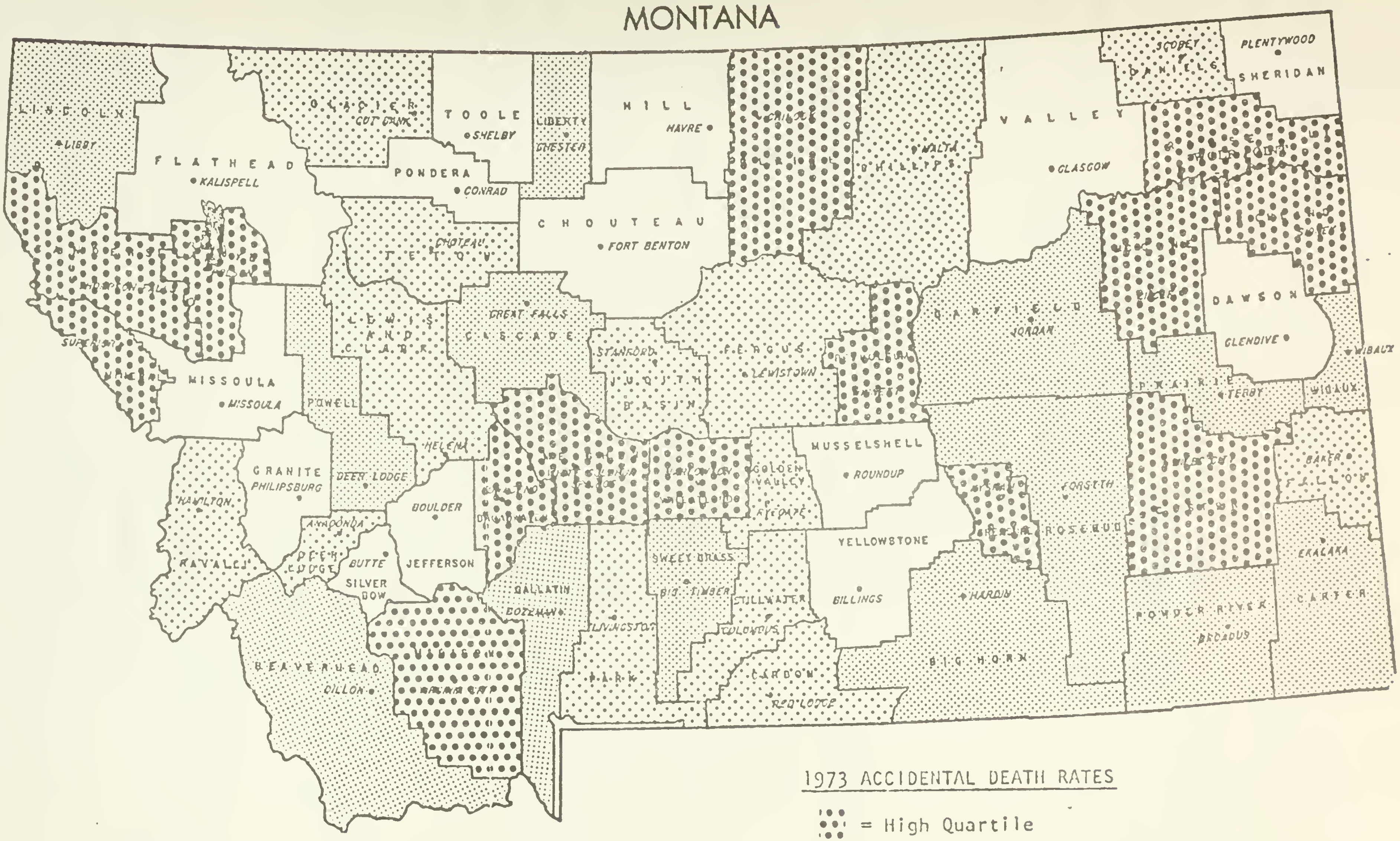
Note: U.S. Rates for the years 1969-1972 are provisional.

TABLE 24
RANK ORDER OF ACCIDENTAL DEATH RATES BY RESIDENCE
PER 10,000 POPULATION
MONTANA COUNTIES - 1973

RANK* 1973	COUNTY	RATE	RANK 1972	RANK 1973	COUNTY	RATE	RANK 1972
1	Judith Basin	38.5	19-20	30	Fergus	7.9	26
2	McCone	21.4	6	31	Granite	7.7	40
3	Mineral	21.2	13	32	Jefferson	7.5	38
4	Liberty	20.0	54-56	33	Broadwater	7.4	4
5	Powder River	19.0	54-56	34	Musselshell	7.3	35
6	Chouteau	18.6	37	35-36	Madison	7.1	11
7	Treasure	18.2	3		Wibaux	7.1	54-56
8	Big Horn	18.0	46-47	37	Missoula	7.0	29-30
9	Petroleum	16.7	2	38-39	Daniels	6.5	28
10	Valley	16.5	31-32		Lewis & Clark	6.5	21-23
11	Lake	15.4	12	40	Dawson	6.4	41
12	Lincoln	14.1	44-45	41	Yellowstone	6.3	39
13	Glacier	14.0	19-20	42	Teton	6.1	15
14	Rosebud	13.6	44-45	43	Sheridan	5.5	31-32
15	Sweet Grass	13.3	43	44-45	Sanders	5.4	8
16	Silver Bow	12.8	33-34		Cascade	5.4	49-50
17	Blaine	11.8	7	46	Fallon	5.3	27
18	Beaverhead	11.3	53	47	Richland	5.2	14
19	Garfield	11.1	49-50	48	Park	5.1	18
20	Toole	10.9	42	49	Prairie	5.0	48
21	Stillwater	10.4	24	50	Gallatin	4.7	51
22	Deer Lodge	10.1	17	51	Hill	4.5	33-34
23	Flathead	9.9	36	52	Powell	4.4	46-47
24	Meagher	9.1	5	53	Pondera	2.8	29-30
25-26	Carbon	9.0	16	54	Phillips	1.9	20-23
	Roosevelt	9.0	10	55	Carter	0	52
27	Ravalli	8.9	20-23	56	Golden Valley	0	25
28-29	Custer	8.0	9				
	Wheatland	8.0	1				

STATEWIDE RATE = 8.5   U.S. RATE = 5.5

*Source: Emergency Medical Services Bureau, Montana State Department of Health and Environmental Sciences



No. 1052 — County Outline Map
STATE PUBLISHING COMPANY
Helena
3 80 Pads - A - WH

MAP III

1973 ACCIDENTAL DEATH RATES

- ● = High Quartile
- ∴ = Upper Middle Quartile
- ☐ = Lower Middle Quartile
- ░ = Low Quartile

shortage of medical manpower in many areas. Physician recruitment is discussed in more detail in the Manpower section, but is also vital to the provision of quality emergency care. Physicians and nurses act as an important link in the chain of services necessary for providing effective emergency medical services. Also, it should be noted that once treated, emergency victims may need other types of medical personnel for rehabilitative services. Eastern Montana should continue efforts to provide appropriate medical manpower to provide for the primary and emergency health care needs of its residents.

Another corresponding link in the chain of emergency medical services is provided by ambulance attendants. As seen on Table 25, there is a total of 176 ambulance attendants distributed throughout the 17 counties of Eastern Montana. Of these 176 attendants, only 36 are certified as Emergency Medical Technicians--Ambulance (EMT-A). The remainder have completed the Advanced First Aid Course provided by the American Red Cross.

Advanced First Aid Training is required by State law for all ambulance attendants. The EMT-A Course provides much more comprehensive training which enables the EMT to

TABLE 25
AMBULANCE SERVICE DATA
EASTERN MONTANA

					Ambulance Personnel Level of Training					
County	Ambulance Service	Type of Service	Type of Ambulance (Year & Make)	State Design Standards Met	No.	Advanced Red Cross	EMT-A	Radio Equipment	Cardiac Monitor	Extrication Equipment
Carter	Ekalaka	Hospital	1960 Coach		6	6	6			
Custer	Miles City	Local Govt.	1968 Van		16	8	8	39.82 MHz		X
Daniels	Scobey	Local Govt.	1960 Wagon		5	5	0	39.82 MHz		X
Dawson	Glendive Richey	Volunteer Volunteer	1973 Wagon 1967 Van	X	18 9	1 9	17 0	155.280 MHz 39.82 MHz		X
Fallon	Baker	Private	1970 Van		4	2	2	39.82 MHz		
Garfield	Jordan	Volunteer	1962 Coach		10	10	0	39.82 MHz		
McCone	Circle	Volunteer	1961 Coach		9	9	0	39.82 MHz		
Phillips	Malta	Local Govt.	1973 Suburban 1967 Coach		11	11	0	155.280 MHz		
Powder River	Broadus	Private	1970 Wagon 1964 Wagon		7	2	5	39.82 MHz		
Prairie	Terry	Private	1970 Van		7	7	0	39.82 MHz		
Richland	Sidney	Hospital	1974 Van 1969 Van	X	12	4	8	39.82 MHz		
Roosevelt	Wolf Point Poplar Culbertson	Hospital Volunteer Local Govt.	1967 Van 1966 Van 1969 Van		8 5 5	8 3 5	0 2 0	39.82 MHz 39.82 MHz 39.82 MHz		
Rosebud	Forsyth Colstrip	Local Govt. Private	1971 Wagon 1965 Coach		8 6	2 3	6 3	39.82 MHz 155.280 MHz		
Sheridan	Plentywood	Volunteer	1967 Suburban		8	8	0	39.82 MHz		
Treasure	Hysham	Local Govt.	1973 Van	X	8	2	6	155.280 MHz		
Valley	Glasgow	Private	1972 Van 1965 Coach		4	0	4	39.82 MHz		
Wibaux	Volunteer	1970 Van	1970 Van		10	10	0	39.82 MHz		
TOTALS	21		24	3	176	115	67		0	3

Source: A Conceptual Plan for the Development of Statewide Emergency Medical Services in Montana, Emergency Medical Services Bureau, State Department of Health and Environmental Sciences perform a variety of emergency procedures. State legislation which certifies EMT-A's and delineates the emergency procedures they are allowed to perform was signed into law after favorable consideration by the legislature. This law will greatly increase the capabilities of EMT-A's to perform lifesaving procedures on emergency victims.

Other special services personnel, such as law enforcement officers, firefighters, and Montana Highway Patrol are often "first responders" to emergency situations. The level of emergency medical training required for these occupations varies greatly. Currently, Montana Highway Patrolmen are taught Advanced First Aid as part of their original training. Recertification requirements vary among divisions throughout the State. Law enforcement officers are required to take the Medical Self-Help Course (an intermediate first aid course) while attending the Montana Law Enforcement Academy in Bozeman. Firefighters, Statewide, receive only minimal first aid training. Some of these "first responders" have taken the EMT-A Course on their own time to better prepare themselves for medical emergency situations.

Communications

Montana's emergency communications capabilities are currently provided in a fragmented manner. Ninety percent of all requests for emergency medical services are initiated through telephone communication. There are 18 separate operating phone companies in Montana, with Mountain Bell being the primary source of telephone service. When a person attempts to enlist assistance for an emergency, he/she must first decide which number to call--police, ambulance, sheriff's office, operator, etc. Choosing the agency best able to deliver emergency medical service requires that the person locate a telephone, select an agency to respond, and finally that the person dials the correct telephone number within that telephone exchange. This is a most difficult burden to place upon someone in need of medical assistance.

Four areas in Montana have an emergency "911" exchange which can be used for any emergency. This greatly facilitates quick response to emergency situations. One area in Eastern Montana, Glendive, has such a system. While this is an effective system for some areas, its implementation has presented a number of difficulties in Montana. The difficulties include the financial investment required of each of a number of telephone companies involved and technical switching problems between the boundaries of telephone company territories and telephone exchanges within regions.

Additionally, interagency conflicts arise when one municipal agency is responsible for answering and properly routing emergency calls for all emergency services. Until these difficulties can be better addressed, intermediate measures for providing quick emergency response by telephone have been researched and will be discussed in the Immediate Needs section.

The Emergency Communications Network also involves two-way radio communications. This becomes more complicated, but a brief description of the situation follows. Usually, once an emergency phone call has been placed, a law enforcement agency is contacted. The appropriate ambulance service is dispatched over the low-band VHF radios at the frequency of 39.82 MHz, which is used by most law enforcement agencies as well as by most ambulances. From the time an ambulance is dispatched primary communication is between the ambulance and the police or sheriff dispatcher on 39.82 MHz.

The dispatcher, who usually has no emergency medical training, must then relay messages from the ambulance to the hospital by telephone communication. There are obviously problems which arise using this type of communication system.

There is a mechanism which allows direct ambulance-to-hospital communication. This involves using the VHF radio on high-band channels of 155.340 MHz or 155.280 MHz. The hospital and the ambulance must have the appropriate radio equipment to use this method. At this time the Glendive Community Hospital, the Glendive Volunteer Ambulance Service, the Malta Ambulance Service, the Hysham Ambulance Service and the Colstrip Ambulance Service have this type of communication system. (See Table 25 for complete ambulance service data and Table 26 for hospital data.)

Hospital-to-hospital radio communication is only possible if each hospital has radio equipment. Only Glendive has this equipment currently. This type of communication is important if the hospital receiving an emergency victim does not have the appropriate personnel or equipment to treat the patient. The patient must then be transferred to another hospital. Radio communication between ambulance and hospital and between hospital and hospital is necessary to provide the appropriate medical information to prepare the patient and the receiving hospital for the appropriate emergency treatment.

None of the areas in Montana have "phone patching" capabilities which allow a physician contacted by telephone to

TABLE 26
1973 EMERGENCY CAPABILITIES
EASTERN MONTANA HOSPITALS

COUNTY	Type of Facility	HOSPITAL NAME CITY	Beds	Admissions	ER PHYSICIAN STAFFING				SELECTED EMERGENCY SERVICES CAPABILITIES											
					ER Visits	ER Phys.	In Hosp. 24 hrs.	On Call	Lab	Radiology	Surgery	Post Oper.	ICU-CCU	Detoxification	Poison Center	Pharmacy	Neonatal Intensive Care	Burn	Acute Psy.	Blood Bank
Carter	AG	Dahl Memorial Hosp. Ekalaka	16	442	52			X	X	X	X		X			X				
Custer	AG	Holy Rosary Hospital Miles City	109	3,557	3,153			X	X	X	X	X	X			X			X	X
	VA	Veteran's Hospital Miles City	96	1,471	0		X	X	X	X	X	X	X			X				
Daniels	AG	Daniels Memorial Hospital - Scobey	20	364	75			X	X	X	X					X				
Dawson	AG	Glendive Memorial Hospital - Glendive	46	1,533	437			X	X	X	X		X			X				X
Fallon	AG	Fallon Memorial Hosp. Fallon	19	530	902			X	X	X	X	X	X			X				
Garfield	AG	Garfield County Hosp. Jordan	8	77	398			X	X		X		X			X				
McCone	AG	McCone County Hosp. Circle	20	724	287			X	X	X	X									
Phillips	AG	Malta Hospital Malta	30	867	228			X	X	X	X		X			X				
Powder River																				
Prairie	AG	Prairie Community Hospital - Terry	8	164	250			X	X				X			X				
Richland	AG	Community Memorial Hospital - Sidney	55	2,082	753			X	X	X	X	X	X			X				X
Roosevelt	AG	Roosevelt Memorial Hospital - Culbertson	19	580	63			X	X	X	X					X				
	AG	Poplar Community Hospital - Poplar	22	687	1,266			X	X	X	X	X	X			X				X
	AG	Trinity Hospital Wolf Point	48	1,440	637			X	X		X		X			X				X
Rosebud	AG	Rosebud Community Hospital - Forsyth	26	595	1,336			X	X	X	X	X	X			X				
Sheridan	AG	Sheridan Memorial Hosp. - Plentywood	26	907	393			X	X	X	X		X			X				
Treasure																				
Valley	AG	Frances Mahon Deaconess - Glasgow	68	2,249	185			X	X	X	X	X	X			X				X
Wibaux																				
TOTALS			636	18,097	10,415	0	1	17	17	14	16	7	14	0	0	16	0	0	1	6

Source: A Conceptual Plan for the Development of Statewide Emergency Medical Services in Montana, Emergency Medical Services Bureau, State Department of Health and Environmental Sciences be hooked into direct radio communication with the ambulance.

Bio-medical telecommunications which allow the hospital to monitor the life signs of the patient by remote control are not possible using VHF radios. There are no areas in Montana which have the appropriate UHF equipment to provide this type of service.

Transportation

There are 26 licensed ambulance services in Eastern Montana. The age and quality of these ambulances vary greatly. Only three ambulances currently meet the State minimum design standards. These are located in Glendive, Sidney and Hysham (see Table 25). Only two have extrication equipment which is used to remove victims trapped in vehicles involved in accidents. Four ambulances have VHF radios with high-band frequency (155.280 MHz) capabilities. The remainder have VHF radios with low-band frequency (39.82 MHz) capabilities.

Facilities

There are 16 non-federal hospitals in Eastern Montana which have emergency rooms. However, there is a wide disparity in the level of staffing and emergency services provided at these hospitals. The hospitals range in size from eight beds in Garfield and Prairie counties to in Custer County. Three counties have no hospital. Only one hospital, Holy Rosary Hospital in Miles City, has physician coverage 24 hours a day. The remainder have a physician on call for emergencies. Table 26 lists the hospitals in Eastern Montana along with the selected emergency services they can provide.

b. Standards and/or Goals

Manpower and Training

Currently the minimum requirement for drivers and attendants of ambulances in Montana is American Red Cross Advanced First Aid or its equivalent. This is considered to be the minimum level of training. In the past EMT-A training was not available in some areas of the State. But since 1972, several courses have been held in Eastern Montan and more are planned. For future development of the EMS system it is important that all ambulance attendants be certified EMT-A's. EMT refresher courses should be available for existing EMT's.

As well, continuing education courses for physicians and nurses which deal with emergency medical procedures should be made available to the area's providers. Law enforcement officers, Montana Highway Patrol and Search and Rescue squads should have, at a minimum, ARC Advanced First Aid. EMT-A training is also encouraged, especially for Highway Patrolmen. Personnel in the EMS system such as EMT's, dispatchers and ambulance drivers should receive communication training to facilitate radio communication during medical emergencies. Broad based Basic and Advanced First Aid Training should be made available to the general public. This will require the training of additional instructors for Eastern Montana.

The EMS Bureau has developed a chart found on the following page which outlines the number of emergency personnel which will be needed by 1980 in each county (Table 27). The guidelines used to develop these goals are listed below:

Footnotes to Four-Year Training Schools

1. The first number indicates the number of existing ambulance personnel (taken from current personnel rosters) needing training to the EMT-A level. The number in parentheses is the total number of personnel needing training to the EMT-A level based upon 15 EMT-A's per ambulance service. Highway Traffic Safety Standard 11 indicates that eight persons are needed to properly staff an ambulance service. However, volunteer services, where all persons have other full-time positions, need this additional number of EMT-A's to provide 24-hours/day, 7 days/week coverage.

TABLE 27
FOUR YEAR EMS TRAINING GOALS
EASTERN MONTANA COUNTIES

COUNTY	EMT-A[1]	EMT REFRESHER[2]	STANDARD FIRST AID[3]	INSTRUCTOR/ TRAINERS	CPR	ADVANCED FIRST AID[4]	STANDARD FIRST AID INSTRUCTORS[5]	ADVANCED FIRST AID INSTRUCTORS
Carter	6 (15)	6 (15)	36	0	(1)	18	4	2
Custer	8 (8)	16 (16)	226	1	(2)	113	23	11
Daniels	5 (15)	5 (15)	62	0	(1)	31	6	3
Dawson	10 (16)	27 (33)	218	0	(2)	109	22	11
Fallon	2 (15)	4 (15)	76	0	(1)	38	8	4
Garfield	10 (15)	10 (15)	36	0	(1)	18	4	2
McCone	9 (15)	9 (15)	56	0	(1)	28	6	3
Phillips	11 (15)	11 (15)	104	0	(1)	52	10	5
Powder River	2 (10)	7 (15)	42	0	(1)	21	4	2
Prairie	7 (15)	7 (15)	40	0	(1)	20	4	2
Richland	4 (7)	12 (15)	194	0	(1)	97	19	10
Roosevelt	16 (43)	18 (45)	200	1	(2)	100	20	10
Rosebud	5 (21)	14 (30)	132	0	(1)	66	13	7
Sheridan	8 (15)	8 (15)	110	0	(1)	55	11	6
Treasure	2 (9)	8 (15)	22	0	(1)	11	2	1
Valley	0 (11)	4 (15)	266	0	(2)	133	27	13
Wibaux	10 (15)	10 (15)	28	0	(1)	14	3	1

2. EMT-A Referesher -- Based upon one retraining program for existing EMT-A personnel and necessary EMT-A refresher training for untrained personnel over a four-year period based upon a two-year certification.

3. Based upon 10 persons trained per 1,000 population to standard first aid level (either Standard First Aid and Personal Safety or Standard Multimedia First Aid).

4. Based upon 10 persons trained per 1,000 population to Advanced First Aid and Emergency Care level.

5. Based upon two Standard First Aid instructors per 1,000 population.

6. Based upon one Advanced First Aid and Emergency Care instructor per 1,000 population.

7. Based upon the following criteria:

    1 CPR instructor/trainer for each county with a population under 10,000;
    2 for each county with a population between 10,000 and 20,000;
    3 for each county between 20,000 and 40,000;
    5 for each county between 40,000 and 60,000; and
    10 for each county with a population of 60,000 or over.

Communications

A program for standardization of the components of the communications system should be implemented. Components of this program include:

1. Designated Emergency Telephone Numbers

The installation of the national emergency three digit telephone number "911" as the emergency medical service input number should be encouraged. Because of of the implementation costs, technical and administrative difficulties involved with this system, this is not the best short term solution to a statewide emergency number.

A statewide toll-free Wats telephone number in the 800 exchange service appears to be a more economical and viable solution for use throughout the State where the "911" system expands to statewide proportions. All the necessary equipment and experience is already in place for such a system, although it has the disadvantage of being, at a minimum, a ten digit number.

2. Dispatcher-to-Ambulance Communications

The Operations Manual of the Emergency Medical Service Communications Manual provides detailed standards of procedure and articulation for the EMS dispatcher. Since most ambulance dispatching will be done by law enforcement services radio dispatcher who are trained to these standards, these are appropriate standards for Montana.

The frequency of 39.82 MHz has grown to be highly populated with many diverse radio services. Because of the tremendous overloading, this channel has become less and less useful for dispatching of ambulances and other emergency services in disaster situations. Dispatching should occur on VHF high-band channels until such time as UHF dispatching frequencies for EMS can be developed in Montana.

3. Ambulance-to-Hospital Communications

All major hospitals in Eastern Montana should have a minimum of four channels of VHF high-band frequencies with digital coding for ambulance services and digital coding for base-to-base service. Phone patching capabilities should be developed in all hospitals having the appropriate radio equipment.

Transportation

Basic ambulance design criteria are included in the Montana State Ambulance Regulations. Due to economic infeasibility in many rural areas, there are no current plans to change these requirements.

All ambulance vehicles in Eastern Montana should meet these minimum requirements. This will require modernization and gradual replacement of 23 vehicles. These vehicles should also comply with the standards required by the EMS Act of 1973.

All vehicles should have VHF radios with high-band frequency capabilities. These ambulances should also have appropriate equipment (as outlined by the EMS Act of 1972), including extrication kits.

Facilities

All hospitals in Eastern Montana should be classified accordin to their emergency care capabilities. Such classification will provide a system for surveying hospital emergency services capabilities and developing an effective patient transfer system if a hospital cannot provide the emergency services required. All hospitals in Eastern Montana should have written working agreements with other hospitals in Montana offering greater emergency capabilities.

c. Immediate Needs

Manpower and Training

All ambulance services in Eastern Montana should strive to train at least one-half of their attendants as EMT-A's to provide highly trained personnel as part of their ambulance services. This will mean that at least 43 attendants will need training.

EMT refresher courses should be available in Eastern Montana to allow EMT's to update their training. Nurses and physicians working in emergency rooms should have access to continuing education courses dealing with emergency medical care. "First responders" should receive, at a minimum, Advanced First Aid certification and should be encouraged to take EMT-A courses.

The local EMS Councils should be responsible for working with the State EMS Bureau and American Red Cross to provide courses in Eastern Montana, notifying appropriate groups (ambulance services, law enforcement agencies, etc.) regarding times and locations of the courses. Schools and civic groups and the local EMS Councils should work to provide broad based American Red Cross first aid training to the general public.

Communications

Currently only one hospital, Glendive Community Hospital, has VHF radio capabilities which utilize high-bank channels (155.280 MHz). Direct communication between ambulance and hospital necessitates using this type of radio equipment. At least two other hospitals, Frances Mahon Deaconess Hospital in Glasgow and Holy Rosary Hospital in Miles City, should develop this type of radio communication to improve their emergency capabilities.

Four ambulance services, located in Malta, Glendive, Colstrip and Hysham, have VHF radios with high-band frequency (155.280 MHz) capabilities. As the two hospitals mentioned above begin to use radio communication, it is important that ambulances who relate to these hospitals also have the appropriate VHF radios. This will allow for ambulance-to-hospital communication while the ambulance is enroute.

The EMS Bureau is working on developing a coordinated statewide communication system. Facilities and ambulance services who are expanding their radio communications should seek advice and assistance from the local EMS councils and the EMS Bureau.

Emergency personnel who will be using communication equipment--EMT-A's, dispatchers, etc.--should develop their abilities to relay concise messages in times of medical emergencies. Dispatchers should be familiar with medical jargon and EMT-A's should receive training in communications.

Transportation

Twenty-three ambulances in Eastern Montana fail to meet State design criteria. Twenty-four ambulances lack extrication equipment. For immediate purposes it would be too costly to replace or remodel all ambulances which fail to meet State design standards. To begin to update Eastern Montana ambulance services, those vehicles 10 years and older should be replaced. This means that nine ambulances currently need replacing. Those services purchasing new vehicles should consult with the EMS Bureau regarding standards and equipment necessary for ambulance vehicles.

Montana State Ambulance Licensing Law requires all ambulances to carry, at a minimum, the 1967 Essential Equipment list of the American College of Surgeons. Ambulance services should review this list, evaluate their equipment and replace out-dated equipment. All ambulances should also have extrication kits.

Facilities

Eastern Montana has 16 hospitals with varying emergency service capabilities. The EMS Bureau, in conjunction with the Montana Hospital Association, is attempting to classify all Montana hospitals according to their emergency service capabilities. Each of Eastern Montana's hospitals should cooperate with this classification, which will allow them to evaluate their emergency systems and to design improvements. In doing so, a Statewide system promoting the speedy referral of patients to the facility which has the appropriate emergency staffing and equipment can be established.

d. Long Range Goals

Manpower and Training

As the population of the area increases there will be a need for more emergency personnel. Eastern Montana should strive to provide the numbers and types of emergency personnel and instructors as specified on Table 27. Using the standards outlined on pages 123 and 125, each county should incorporate population increases into the standards to calculate their future emergency manpower and training needs.

Communications

Expansion of the implementation of the "911" nationwide emergency telephone number will continue over the next 10 years. Regionalized central emergency service dispatching is necessary in Montana to assure 24-hour centralized dispatching coverage. Plans are to use Missoula, Great Falls and Billings as primary dispatch centers, with secondary centers linked to these primary centers by designated telephone lines.

For a viable Statewide EMS communications system between ambulance and hospitals, each ambulance communications system will need a minimum of four channels with digital coding abilities. Each fully licensed EMS ambulance manned by EMT personnel should be equipped with an ambulance-to-hospital radio system.

Emergency medical service communications and dispatching should be accomplished on an assigned regional VHF high-band channel. The dispatching center should be remoted to the EMS transmitter to enable control of this one channel.

To provide an optimum EMS communications system, a Statewide approach is necessary in Montana. One central State agency should be responsible for coordinating and administering the EMS communications system for the State. Currently the EMS Bureau has spent much time on such a system for Montana. All communications improvements in Eastern Montana should be coordinated with other regional and Statewide communications activities to properly develop an efficient emergency communications system.

Transportation

There should be sufficient ambulance coverage in Eastern Montana so that all requests for assistance in the Region are met within 30 minutes. In 10 years at least 85% or 22 ambulances should meet State design standards. All should include adequate medical and radio equipment to assure optimum emergency medical services to meet the emergency needs of Eastern Montana residents.

Eastern Montana should develop adequate emergency air transportation services. Standards for air ambulances should be developed at the State level. Air ambulance service should be available for patients requiring more specialized care not available in Eastern Montana.

Facilities

The 16 hospitals in Eastern Montana should cooperate with the EMS Bureau and the Montana Hospital Association in their attempts to classify hospitals. Once the classification system is completed, Eastern Montana will be in a position to assess the emergency medical services needs of the area in terms of the available emergency medical resources. Hospitals in the area should cooperate in developing the appropriate emergency capabilities which will provide adequate emergency coverage to handle most of the medical emergencies which occur in the area.

Hospitals in the area should develop standardized systems of referral for providing more specialized emergency medical services. This will involve coordination with Billings and Great Falls hospitals. Hospitals should also formalize their facilities' emergency procedures, assuring staffing for emergency rooms and education to all staff regarding medical emergencies.

3. Alcoholism/Drug Abuse

a. Inventory

In Eastern Montana there are a variety of resources available for providing alcoholism/drug abuse services, but Regionally they are provided in an unstructured and uneven manner for the most part.

Emergency services are provided by police, Red Cross, Welfare, Mental Health, and volunteers, but no single group has continuing authority to provide emergency alcoholism/drug services. Each county deals with such emergencies as they arise with no clear system for handling the emergency or providing the continuity of care required for effective treatment of alcoholism and drug abuse.

For the past four years, Action for Eastern Montana provided an alcohol/drug program which acted as the primary service agency for outreach, casefinding, information and referral services. As of April 1, this organization will have only one full-time and one part-time counselor available. Rosebud County has a full-time alcoholism counselor available, stationed within the Public Health Department. Some services are also provided through the Crisis Hot Line in Glendive, operated by the Mental Health Center. For most of the area, volunteers and Alcoholics Anonymous are carrying most of the load for outreach, casefinding, and aftercare services for alcoholism and drug abuse.

At present there are no facilities for intensive or immediate care within Eastern Montana. Referrals for in-patient treatment are made mostly to Heartview, at Mandan, North Dakota, the VA Hospital in Sheridan, Wyoming, or to the state treatment center in Galen. With the closure of the Miles City half-way house, the Billings, Havre and Great Falls half-way houses have been used for intermediate care.

Outpatient services are offered through the Regional Mental Health Centers; however, there remains a need for counselors assigned specifically to work with alcohol and drug-related problems at these centers.

b. Standards and/or Goals

There exists in Eastern Montana a variety of alcoholism/drug abuse services, but they are fragmented and lack a unifying structure. What is needed is a coordinated system for providing prevention, treatment and rehabilitative services for alcoholism/drug abuse. A coordinated system demands a central group or agency which acts as the coordinating body either on a District or Regional level.

It is necessary to identify all existing alcohol/drug-related resources available in Eastern Montana and for those identified groups to determine the agency or group which has the best capability for District or Regional coordination. This coordinating agency should be responsible for the following:

1. Identifying existing resources and determining where gaps in service exist;

2. Planning for and evaluating the provision of alcohol/drug-related services in Eastern Montana;

3. Tying existing resources together and merging duplicative functions/activities carried on in the area;

4. Seeking adequate funding for alcohol/drug-related programs from local, State and Federal sources.

5. Providing training programs for alcoholism/drug counselors, outreach workers and para-professionals;

6. Providing community and school education programs regarding the problems associated with alcoholism and drug abuse; and

7. Providing educational programs and information to law enforcement agencies and social service agencies regarding alcohol/drug-related emergency treatment and availability of area resources.

c. Immediate Needs

The development of a coordinated system for existing resources and the establishment of a coordinating agency should be the first measure undertaken to fulfill the area's need for alcohol/drug-related services. Once this has been accomplished, there will be a structure available for future development or expansion.

More community alcohol/drug counselors are needed in the area so that every county will have access to outreach and aftercare services. There should be a minimum of one specially trained alcohol/drugs counselor assigned to each mental health center and local area office.

The alcoholism/drug abuse coordinating group, the Regional Mental Health Program staff and Areawide Comprehensive Health Planning Council staff should explore funding sources available at the local, State and Federal levels to support such a project. By combining forces these programs can share expenses and provide more comprehensive services. It is important that all groups involved clearly define the responsibilities of the outreach workers and develop appropriate liaisons with the area's health professionals.

Intermediate care is currently provided out of the Region. Such care should be available in at least one location within the 17 eastern counties. Group homes for alchoholics/drug abusers are one alternative for rural areas such as Eastern Montana to provide intermediate services for its residents. At least one such home should be developed to act as a model for future group homes in the area. More group homes or a half-way house should be considered if a need is defined by the coordinating group.

There should be adequate emergency services to meet the needs of the area. Holy Rosary Hospital in Miles City is an appropriate institution to coordinate detoxification efforts at this time. Efforts should be made to upgrade their detoxification capabilities and to consider future development of additional detoxification centers to meet future needs.

d. Long Term Objectives

The long-range needs of the area should be continually assessed by the coordinating group or agency, and a continuation of all efforts will be maintained through this agency.

As population growth occurs, expansion of services should be addressed with the development of emergency and intermediate in-patient services as demand may increase.

It must be mentioned that the best treatment of alcoholism/drug abuse is its prevention. Continuing efforts at the national, state and regional level to develop and administer effective educational programs, especially through the schools, must be encouraged to effectively reduce the incidence of alcoholism/drug abuse.

4. Mental Health

a. Inventory

The Eastern Montana Regional Mental Health Center provides psychotherapy, diagnostic and educational services to a 17 county area. Centers are located in Miles City (main office), Glasgow (satellite office), and Glendive (satellite office). Local and area offices (outlying areas having a resident staff member under the supervision of the nearest center) are located in Plentywood, Forsyth and Ashland. Participating counties--those counties sharing a small part of the operative costs of Mental Health Centers--are Phillips, Valley, Daniels, Sheridan, Roosevelt, Garfield, Dawson, Prairie, Treasure, Rosebud, Custer, Fallon and Powder River.

Fees for persons residing in participating counties are based on a sliding scale according to income and number of dependents. County agencies are able to contract services for diagnostic evaluations, consultations, psychotherapy or in-service training. Individuals residing in non-participating counties may avail themselves of the services offered by the center; however, they are charged the maximum rate of $25 per hour for services. Agencies located within non-participating counties are charged for services on the same basis as participating counties; however, those agencies in participating counties are given priority and those in non-participating counties are served only as staff time is available. The latter is also charged for all center actual expenses such as travel, per diem and secretarial time involved in providing these services. No center staff reside in the non-participating counties.

The five basic services as outlined by Federal guidelines--in-patient, out-patient, emergency, partial hospitalization, consultation and public education--are provided by the Miles City office for its area. However, partial hospitalization is not available in the Glasgow area. Residents needing partial hospitalization are presently referred to Miles City. Emergency services for the Glasgow area are presently provided via a weekend, independently-operated crisis line and a listing of staff members with the local hospital. Four of the five services are presently provided by the Glendive office. There is no partial hospitalization; residents needing this service are referred to the Miles City program. In-patient services for the Glendive area are provided by the psychiatrist residing in Miles City. Glendive residents can be hospitalized at Holy Rosary and receive direct psychiatric care there.

At the present time there are 15 professional mental health personnel (psychiatrists excepted) serving Region I, yielding a ratio of one Community Mental Health professional per 6,150 persons. This compares to a national ratio* of one Community Mental Health Professional per 2,500 persons. There are presently two full-time (Community Mental Health) and two part-time (private) psychiatrists providing a ratio of one psychiatrist per 30,800 persons; this compares to a national ratio of one psychiatrist per 9,100 persons. This suggests that psychiatrists in Eastern Montana are responsible for serving nearly 3½ times as many persons as are psychiatrists nationally. The personnel are distributed as follows: (The three paraprofessionals working in the Miles City office are not included in this data.)

	Miles City Center (See #1 below) (Pop. 28,500)	Glendive Center (See #2 below) (Pop. 26,800)	Glasgow Center (See #3 below) (Pop. 37,000)
Psychiatric Nurses	3	0	0
Social Workers	1	0	0
Psychiatrists	1	0	1
Psychologists	5 (one of whom is 1/10 time)	2	3
Occupational Therapists	1 (1/5 time)	0	0

There are three primary Mental Health Centers in Eastern Montana, with one center in each district. A brief description of each center follows:

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* The staffing of the 500 federally designated centers across the nation was utilized to determine this national ratio.

1. The Miles City (main office) Center services the following counties: Custer, Fallon, Carter, Powder River, Treasure, Garfield (latter five counties are serviced by traveling staff), and Rosebud (local area office). Both clinical and administrative directors have their offices in the Miles City Center.

2. The Glendive Center services the counties of Dawson, Prairie (traveling staff), Wibaux, Richland and McCone, and is supervised by an associate director.

3. The Glasgow office serves the counties of Valley, Phillips (traveling staff), Roosevelt (traveling staff), Daniels and Sheridan (a resident staff member).

b. Standards and/or Goals

The standards of competence of mental health personnel should reflect the standards set by the professional association represented, e.g., American Psychological Association, American Psychiatric Association, etc., as well as those set by the Merit System. Peer review should be incorporated via evaluative teams comprised of currently practicing Community Health Center professionals having clinical and administrative expertise and who are independent of the Eastern Montana Community Health Center.

The National Institute of Mental Health (NIMH) outlines five basic services which should be provided by a comprehensive mental health program. These include: inpatient services, outpatient services, emergency services, partial hospitalization, consultation and public education. It is the goal of the Regional Mental Health Program to fully provide all five services through all centers in Eastern Montana. Included in the goal is to provide all 17 counties' residents access to these services by working with county commissioners of the non-participating counties developing more outreach and referral capabilities, and providing greater public awareness of the services provided.

c. Immediate Needs

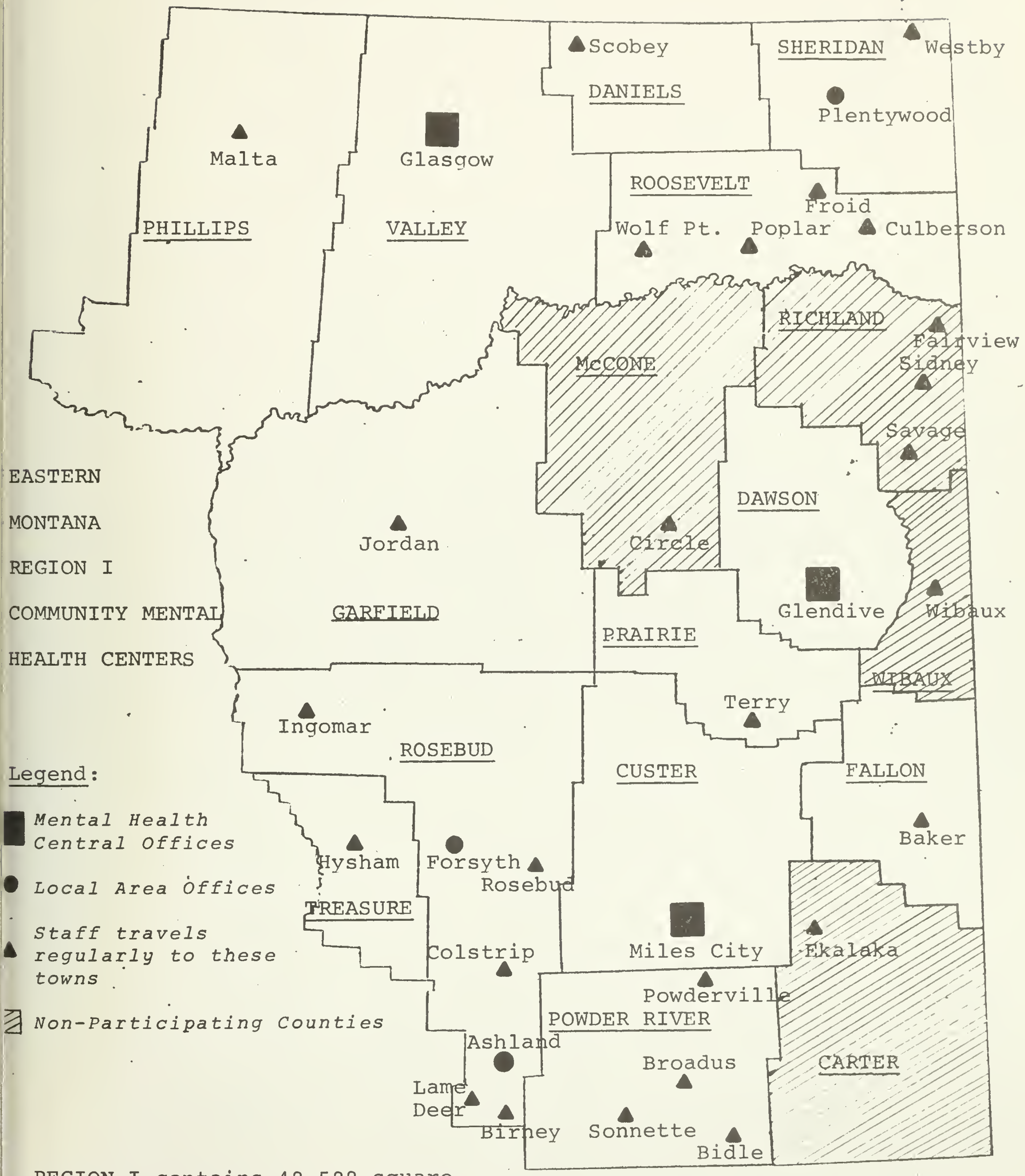
Four counties are currently not participating in the Regional Mental Health Program and receive services on a fee-for-service basis as time allows. All counties should assess their mental health situation and re-evaluate their need for mental health services. Community groups, county commissioners and other public officials should meet with the mental health personnel to determine what types of services are needed for their area and work to provide mental health services for all Eastern Montana counties.

More mental health professionals are needed in the area. A psychiatrist and a psychiatric nurse are needed for the Glendive office, a licensed clinical psychologist for the Miles City office, and a psychiatric nurse and licensed psychologist for the Glasgow office. Facility needs include: a Regional treatment center for children and adolescents and an addictive disease treatment facility. Finally, there is a Statewide need for more comprehensive pre-admittance screening for Warm Springs State Hospital referrals and extended after-care services for discharged state hospital patients. The Regional Mental Health program is an appropriate group to spearhead this effort in Eastern Montana.

d. Long Term Objectives

To provide the five basic services outlined by NIMH through the three Mental Health Centers in Eastern Montana, several objectives must be outlined. Partial hospitalization needs to be developed at the Glasgow and Glendive offices. A 24-hour, seven-day-a-week crisis line is needed in the Glasgow office. Increased staff is needed for the Region, and would allow for better geriatric mental health care to be provided. Increased attention should be given to early detection and prevention via inservice training of allied professionals, public classes for parents, and other interested citizens, and greater use of the media for expanding public awareness of the program. Map IV indicates the locations of the community mental health centers in Eastern Montana.

MAP IV



EASTERN MONTANA REGION I COMMUNITY MENTAL HEALTH CENTERS

REGION I contains 48,588 square miles with 92,400 people (1973 Census)

IV

Cost and Financing of Health Care System

IV. COST AND FINANCING OF HEALTH CARE SYSTEM

This section presents cost information of hospitals and nursing homes in Eastern Montana, and serves as a reference for discussing the financial components of the area's future health care system. The historical costs (1969 to 1974) of nursing homes and hospitals in this Region are discussed first, followed by a summarization of data indicating the various modes of payment for health services in the area. Finally, alternative methods of health care payments are discussed.

Hospital Costs

From 1969 through 1974 the average patient cost per day for hospitals in Eastern Montana increased 123% from $39.76 to $88.66. This is an average increase of $9.78 per year for the five-year period. Table 28 displays the trends in hospital costs for 16 facilities in Eastern Montana.

The Region's average cost per day compares favorably with both the State and National experience. In 1971 the nation's average cost per day was $92.00* and the State of Montana $69.00, while Region I indicated less than $53.00 per day for hospital costs.

Nursing Home Costs

Although data are scarce for the earlier years, it appears that nursing home costs per day rose by 30% from 1969 to 1974. This represent a $.78 average annual increase in daily rates. Table 29 shows the average daily costs for nursing homes in Eastern Montana from 1969 to 1974.

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* 1973 Statistical Abstract of the United States

TABLE 28
TRENDS IN HOSPITAL COST PER DAY
EASTERN MONTANA 1969 THROUGH 1974

DISTRICT	1969	1970	1971	1972	1973	1974	PERCENT CHANGE 1969 TO 1974
1	$ 39.84	$ 43.48	$ 49.01	$ 60.96	$ 70.75	$ 75.40	89 %
2	39.50	53.54	57.48	63.55	84.04	105.37	167 %
3	39.94	47.64	53.08	64.30	70.23	87.37	119 %
REGIONAL TOTAL	39.78	42.27	52.67	62.54	74.77	88.66	123 %

Source: Derived from information provided by the Montana State Department of Health and Environmental Sciences.

TABLE 29
TRENDS IN COST PER DAY FOR SKILLED BEDS EASTERN MONTANA NURSING HOMES 1969 THROUGH 1974

DISTRICT	1969	1970	1971	1972	1973	1974	PERCENT CHANGE 1969 TO 1974
1	$ 10.27	$ 11.05	$ 9.96	$ 10.64	$ 12.90	$ 14.64	43 %
2	21.07	17.14	23.16	20.26	17.96	20.50	-3 %
3	13.06	13.01	13.66	13.20	16.43	14.64	12 %
REGIONAL TOTAL	12.67	12.38	13.43	13.07	15.42	16.59	31%

Source: Derived from information provided by the Montana State Department of Health and Environmental Sciences.

Modes of Payment

Table 30 is a summary of modes of payment to hospitals in Eastern Montana. Commercial insurance accounted for 35.7% of payments in the area. Combining this with the Blue Cross/Blue Shield percentage of 7.4%, it is apparent that the insurance sector constituted the largest source of payment to hospitals in Eastern Montana.

The combined government sector, including Medicare, Medicaid, Workmen's Compensation and other government agencies provided for 23.3% of all payments. 20.9% of the payments were paid directly by the private sector.

While payment sources in the future will certainly utilize the established modes as described above, new and/or altered methods must also be considered. Specifically, the development of a Health Maintenance Organization and/or the implementation of National Health Insurance may have significant impacts in the provision of health care in the future. Following is a brief discussion of these two potential developments. The 1974 Montana State Plan for Health contains a thorough presentation of both Health Maintenance Organizations and National Health Insurance.

Health Maintenance Organization

A Health Maintenance Organization (HMO) is a health delivery mechanism designed to provide comprehensive health care to its enrolled members.

TABLE 30

MODE OF PAYMENT TO HOSPITALS

Mode of Payment	Region I (%)	Montana (%)
No modes stated	8.6	2.5
Workmen's Compensation	1.0	2.0
Medicare	16.5	17.8
Medicaid	1.9	4.1
Other Government Agencies	3.9	8.6
Blue Cross/Blue Shield	7.4	8.9
Commercial Insurance	35.7	34.7
Private	20.9	16.6
Charity	1.1	.9
Other	3.1	4.0
TOTAL	100.1	100.1

Source: Patient Origin Study 1970-1971, pp. 310-313, Division of Comprehensive Health Planning, Department of Health and Environmental Sciences

The HMO concept emphasizes preventative health care based on the premise that it costs less to keep a person healthy than it does to cure him/her should he/she become ill. The principal components of an HMO are:

1. An enrolled population which pays a fixed premium every month for comprehensive health services;
2. Physicians, practicing solo or in a group, who supply all physician services (home, clinic or hospital) and who are rewarded financially for reduction in unnecessary utilization; and
3. Service contracts, between the HMO and purveyors of hospital, pharmacy, X-ray, lab, extended care, etc., for services which are not provided in-house by the HMO.*

A study has been initiated in Miles City to determine the feasibility of implementing an HMO in Eastern Montana. The establishment of such a comprehensive health care package could introduce a number of improvements to the area's existing health care delivery system.

National Health Insurance

National health insurance (NHI) has been proposed as a means of guaranteeing the accessibility of health care to the American public. The concept behind NHI is that all participants should have access to a minimum level of health benefits at a cost roughly proportionate to their incomes.**

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* Montana State Plan for Health, August 1974, Division of Comprehensive Health Planning, Department of Health and Environmental Sciences, pp. 234-235.

** Ibid., pg. 227.

In light of the relatively high percentage of hospital payments made by the private sector in Eastern Montana (20.9% as compared to 16.6% Statewide--see Table 30), and the fact that hospital costs per day in this area have increased 123% in the last five years (see Table 28), the implementation of NHI may be of particular significance to the area's residents. However, there is still much speculation as to the form in which NHI may be presented; hence discussion of its potential impacts to Eastern Montana would involve mostly conjecture at this time.

V

Implementation of the Plan

V. IMPLEMENTATION OF PLAN

A. Develop a Community Education Program

In an effort to inform the general public of the purpose and content of the Eastern Montana Health Plan and to assist them in whatever way we can, a multi-media community education program will be developed by the Eastern Montana Areawide Comprehensive Health Planning (CHP) Agency. This program will summarize the inventory, standards and/or goals, immediate needs and long term objectives of the three components of the health care system: manpower, facilities and services. In addition, it will specifically involve the following:

- Assisting and educating communities with their health manpower recruitment efforts;
- Informing the communities of the alternatives in providing health manpower and assisting them where needed;
- Making communities aware of options to deal with the hospital bed surplus;
- Emphasizing the preventative aspects of public health, mental health and alcoholism; and
- Providing health career information to the Region's high schools.

B. Manpower

1. Recruit and Retain Physicians, Dentists and Allied Health Professionals

The Eastern Montana Areawide Health Plan documents the severe shortage of health manpower in the Region. The major part of the solution lies in the direct recruitment of physicians and other health professionals, as well as the development of a long term strategy for recruitment. The following items represent varying methods to achieve both short term and long term manpower needs:

a. Establish an Areawide Recruitment Clearinghouse

Individual and community attempts to recruit and to retain physicians, dentists and allied health professionals have been largely unsuccessful in Eastern Montana. The need for a centralized effort is obvious. We propose that a central clearinghouse be established.

The Planning Committee feels that an appropriate agency to carry out this function is the Economic Development Association of Eastern Montana (EDAEM). As a Regional effort, the clearinghouse should involve the following components:

- Inventorying all health manpower;
- Establishing relationships with medical schools, medical journals and medical associations;
- Promoting greater access to medical schools for native Montana students;
- Securing access to continuing education programs;
- Research available data on recruitment techniques;
- Developing an areawide recruitment strategy; and
- Supporting the future establishment of a State recruitment clearinghouse.

Resources of the Montana Hospital Association, Montana Medical Association, Montana Educational Research Foundation and other appropriate organizations and agencies will be utilized as much as possible in the development of the clearinghouse.

The ultimate objective of CHP is the development of a Statewide clearinghouse and efforts to achieve this aim will be carried on by EDAEM. We view the development of an areawide clearinghouse in no way contradicts the future establishment of a State clearinghouse. The recruitment policy of a regional clearinghouse reflects the needs and objectives of its area and would complement the aims of a state recruitment strategy.

The three CHP District Health Facilities Committees will be the organizers of the clearinghouse and the Planning Committee will act as the coordinating committee.

b. Assist Development of Model Satellite Systems

With the clearly limited health resources in Eastern Montana, the use of available facilities, manpower and finances must be effectively planned to assure that comprehensive and quality health care is available to all Eastern Montanans.

The satellite system concept is an attractive alternative to providing health care to those communities who are without a physician or who may lose their solo physician in the future and have to close down their hospital. It is also increasingly difficult for rural hospitals and nursing homes to meet the stringent State and Federal regulations concerning required equipment, manpower and reports and demands for cost containment and efficiency. The survival of these health facilities lies with the degree of flexibility which can be maintained in meeting the challenges of the future. The satellite system concept can help facilities meet these difficulties. One approach would be to have the smaller facilities convert to out-patient clinics which would be operated by a traveling physician or physician extender with support provided by the area's larger medical facilities. The concept of a satellite system or satellite physician services is flexible enough to meet individual district's needs. It must also be mentioned that innovative systems for the delivery of health care act as an incentive in the recruitment and retention of physicians.

Two multi-county districts in the Region have already begun work on the development of satellite health delivery services. Physicians have shown interest in such a project and, under the auspices of the District 3 Health Facilities Committee, development of a satellite health services model will be explored. Such a program would offer: 1) a network of leased lines or WATS lines for immediate and effortless communication; 2) central business management; 3) strengthening of existing medical referral mechanisms; 4) emergency ambulance coverage; 5) centralized nursing and technician pool; 6) provision of education and vacation leaves, regular weekend coverage and local seminars; and 7) efficient utilization of the nurse practitioner program at Montana State University.

District 2 is considering a Rural Health Initiative Project whereby physicians would provide services to those communities lying mainly in District 2.

The Areawide CHP Agency will assist communities and districts where needed and requested. The CHP health committees offer the formal structure to organize, plan and implement model satellite systems.

c. Continued Support of WICHE and WAMI

The Areawide CHP Agency will continue to support the WICHE and WAMI programs in their attempts to provide medical education opportunities to rural states. Continuing efforts will be made to obtain a Community Clinical Unit (CCU) in Eastern Montana and to insure selection of WAMI students from the Region.

d. Investigate the Feasibility of Developing Relationships with Out-of-State Professional Schools

There is a crucial need to promote greater access to professional schools and training programs for native Montana students. In addition to WICHE and WAMI, the possibility of developing relationships in neighboring medical schools and training programs will be investigated. This will be the responsibility of the proposed EDAEM areawide clearinghouse.

The Areawide CHP Agency will look into programs at the University of Minnesota, the University of North Dakota and other medical schools in the Great Plains states with the idea of establishing relationships with them and/or securing slots for Montana medical students and/or recruiting their medical school graduates. The Medical Education Community Orientation (MECO) program can be utilized to aid in the development of relationships with professional schools. The objective of this program is to involve pre-sophomore medical students in the complete spectrum of health care delivery at the community level. This involves close working relationships with physicians and hospital administrators in a rotational educational experience. Miles City has already taken advantage of MECO to secure three medical students from the University of North Dakota to come to Miles City for eight weeks in the summer. Such efforts can be expanded to eventually serve the entire Region.

e. Improving Opportunities for Continuing Education

Ready access to continuing education is an incentive to encourage health professionals to remain in Eastern Montana. An ever present problem for isolated areas is the lack of a coordinated system for continuing educational programs. Physicians must leave the State to continue their education since there are no medical schools in Montana. Refresher courses, workshops and conferences are most often held in larger cities or out-of-state. Due to time-distance factors, coupled with the shortage of manpower and lack of backup services in the Region, it is close to impossible for health professionals to attend many of these programs.

Securing access to continuing education programs is the responsibility of the proposed areawide clearinghouse and efforts will be made to make refresher workshops and advanced courses more available to the physicians, nurses and other health professionals.

The Montana Medical Education and Research Foundation (MMERF) provides continuing education for Montana health professionals and the clearinghouse will keep up to date on programs currently being offered by MMERF. If it appears that enough health professionals would be interested in a specific subject, the clearinghouse will work with MMERF (or any other interested agency or group) to study the feasibility of establishing a relevant program. Obtaining locally held seminars is an important consideration also.

f. Support Appropriate Manpower Legislation

Any long term solution to the recruitment and retainment of health professionals in rural areas must include progressive manpower legislation on both the State and national levels. Those manpower bills which further the goals and objectives of this Health Plan and which the CHP health committees deem appropriate will be supported by EDAEM.

The use of physician assistants (PA's) is one method for easing a physician's patient load and allowing the physician more free time to pursue further training and leisure activities. The failure of the legislature bill which would have regulated the utilization of PA's has uncertain consequences for the future utilization of PA's. The CHP Agency will strongly support legislation specifically enabling physicians to use PA's in the next legislative session.

C. Facilities

1. Strengthen Review and Comment

The major priority involving health facilities will be to enforce and strengthen the Review and Comment process. Review and Comment is an effort to eliminate the wasteful duplication of health care facilities and services and to support only those that are actually needed by their communities. Through the review process, the costs of a proposal are weighed against the expected community benefits. There are three types of review.

a. Voluntary Review

These are conducted for any institution, program, organization or individual who values community input and recommendations. Proposals submitted for this type of review are not covered by other review requirements. Results of the review are sent to the sponsors of the proposal.

b. Section 1122 Review, Title XI of the Social Security Act (PL 92-603)

Section 1122 is designed to help control rising health costs by discouraging unnecessary health expenditures. Under this law, Comprehensive Health Planning organizations are authorized to review proposals on or in behalf of health facilities or health maintenance organizations contemplating a capital expenditure of $100,000 or more, a change in the number of beds, or a substantial change in services if the applicant expects to be reimbursed by Titles V (Maternal and Child Health), XVIII (Medicare) or XIX (Medicaid). The recommendation of the CHP Agency is forwarded to the Department of Health and Environmental Sciences which, as the Designated Planning Agency, makes the final decision as to approval or disapproval of the project.

c. State Clearinghouse for A-95 Review

This review is for the State Clearinghouse and covers applications for federal health funds for community mental health centers, Regional medical programs, federally assisted hospital and nursing home construction, and health services projects. Comments are sent to the State Clearinghouse.

The Economic Development Association of Eastern Montana (EDAEM), being the designated Areawide Comprehensive Health Planning Agency in Eastern Montana, is responsible for reviewing projects in this area. The major reasoning for having areawide reviews is the belief that the use of citizen participation at the planning district level in the public decision-making process improves the intrinsic value of those decisions.

The Areawide currently has three facilities committees, one in each planning district, which review proposals dealing with their particular district. The district committee's recommendation is decided upon and set to the Department of Health and Environmental Sciences. The following are the major criteria used by the committees to evaluate health facilities proposals:

- The current or projected community need of health services as measured against the health plans developed by the State and local comprehensive health planning agencies;
- Whether the proposed project can be adequately staffed and operated;
- Its economic feasibility, whether it will result in unreasonable increases in charges to patients; and
- Improved efficiency and productivity fostering cost containment through such factors as ambulatory, preventative, or home health care, and design and construction economies.

d. Certificate of Need (State Law 0316-01)

A Certificate of Need bill recently passed in the Montana Legislature, which will require that applicant facilities planning to expand or build new facilities receive a Certificate of Need before they can be licensed by the State of Montana, will become effective July 1, 1975. In the future, applicants will not only be faced with the possibility of losing portions of their reimbursement funding through Titles V, XVIII and XIX of the Social Security Act, but will also lose the ability to license their facility if approval is not received by the Review and Comment process.

This Health Plan will be a major tool to be used by EDAEM's review committees in establishing the current and projected need of health services for particular areas or communities in Eastern Montana. It will provide a solid base from which the committees can make recommendations based on accurate and current statistical data. An equally important factor is the value this Plan will have regarding a potential applicant institution's own planning process. Potential applicants will be able to refer to the Eastern Montana Areawide Health Plan and use its contents to assist them in determining the best method and procedure for their particular project.

In short, this Plan will strengthen the local decision-making process by providing Review and Comment in Eastern Montana with a solid base of information pertinent to the identified needs and resources in the area.

2. Assist Communities and Districts in Developing Options to Deal with Overbedded Facilities

In addition to future proposed projects covered under the Review and Comment procedure, one must be equally concerned with the present situation and problems that are confronting Eastern Montana's health facilities. As stated in the Facilities section of the Plan, no further hospital expansion should take place in the Region unless there are concomitant reductions in the number of existing beds. Contrastingly, significant deficits begin to occur in nursing home beds by 1980 and these increase dramatically by 1985.

The Areawide CHP Agency will assist communities in developing options best suited to them in dealing with the hospital bed surplus. Alternatives, as listed in the Facilities section, are:

- Continued subsidization of the status quo;
- Reclassification of hospital beds into nursing home beds;
- Develop satellite system; or
- Close hospital facilities and improve emergency medical system.

CHP will make every effort to help communities look at their situations realistically and choose an alternative suited to their particular situation. High on the priority list will be the effort to reclassify hospital beds into nursing beds. This method is possible with some or all of a facility's beds, while at the same time reducing staff requirements, etc.

As discussed in the Manpower section, satellite systems present another alternative that will be strongly suggested to area communities. This concept would see the smaller hospital facility turned into an outpatient clinic type operation with support being provided by the area's larger medical institutions. The clinic would be appropriate for the short term patient while long term and serious illness referrals would be made to the larger facility. The fourth alternative discussed, closing hospital facilities and improving the emergency medical system, presents a situation that few communities want to face.

In conjunction with the community education program, the Areawide will work closely with appropriate communities to educate them as to the alternatives available, including the positive and negative aspects involved.

The important thing to remember is that communities will receive all possible assistance from both Area and State Planning Agencies in their attempts to improve the availability of health services in their communities. There are many difficult problems to face in the future, thus cooperation is of the utmost importance if everyone is to benefit from their solutions.

3. Conduct Veteran's Administration Study

Significant concern has been generated over the future of the Veteran's Administration (V.A.) hospital and extended care facilities located in Miles City. A study of the existing V.A. facility, its service area, client population and interaction with local provider institutions will be undertaken by the Areawide staff. The study will then attempt to identify roles, relationships and responsibilities of all eligible V.A. patients. This effort will be completed no later than December 1975 and then will be disseminated to the Areawide Planning Committee for further action.

4. Collect Data on the Indian Health Service

The Eastern Montana Areawide CHP Agency will begin collecting data immediately on the Indian Health Services in Eastern Montana. The Fort Peck Reservation will receive priority because its boundaries lie entirely within Eastern Montana. Coordinated programs will be worked out between the North Central CHP Areawide and South Central CHP Areawide to cover the Fort Belknap and Northern Cheyenne Reservations respectively. A report detailing these coordinated programs will be presented by December 1975. An important consideration will be the degree of influence the private sector of medicine has on the inhabitants of reservations in Eastern Montana versus the Indian Health Service.

There has been an increasing tendency towards the use of private medical services in recent years. The effect this will have on the Indian Health Service remains to be seen.

D. Services

1. Public Health

a. Encourage Those Counties Without Public Health Nurses to Obtain One

Many counties are unaware of the advantages of public health towards the maintenance and promotion of good health. The community education program will include a discussion of the misconceptions of public health services offered by public health departments and the advantages of public health. The points raised will be presented to county commissioners in those counties without a public health nurse: Daniels, Prairie, Fallon, Carter and Treasure Counties.

b. Support Expansion and Education of Home Health Care

With the large proportion of people 65 years or older in Eastern Montana, home health care offers vital services to the elderly and infirm and an alternative to institutionalization. Richland County has the only health department currently operating a licensed home health agency. Efforts to expand home health care and to educate the public of the advantages of home health care are being made at the State level. CHP will support these Statewide efforts.

c. Seek Funding for Multi-County Public Health Department

The CHP Agency and other interested communities will seek funding from the State Department of Health and Environmental Sciences and private organizations such as the Old West Regional Commission for the development of a model for multi-county health departments. Such an effort can tie in with the satellite models proposed by Districts 2 and 3. If physicians are under contract to provide services to outlying communities, then nurses could travel with the physicians and set up screening, blood pressure and immunization clinics.

d. Support Efforts for a Coordinated State Public Health System

Support for a coordinated State system of public health departments and cooperation with State agencies will be continued by the Area-wide CHP Agency.

2. Emergency Medical Services

a. Support EMS Bureau

The role of the CHP Agency concerning the majority of the needs and objectives discussed in the Emergency Medical Services section will be to support and to assist with the efforts of the EMS Bureau in reaching the following goals:

- Assisting communities in replacing nonconforming ambulances;
- Ensuring that all first responders have EMT training and access to refresher courses;
- Creating a toll-free emergency number;
- Implementing the classification system; and
- Improving the existing communications system.

b. Assist Communities and Districts in Development of EMS Councils

In addition to supporting the EMS Bureau, CHP can be active in helping communities and districts develop their own EMS councils.

3. Alcoholism and Drug Abuse

a. Assist Development of Coordinating Body

The need for a unified and coordinated system in the Region for the provision of prevention, treatment and rehabilitation services for the alcoholic and drug user is cited in the Alcoholism/Drug Abuse section. Because of the fragmented structure of alcoholism and drug abuse services in Eastern Montana, this Areawide Health Planning Agency will initiate a meeting of all those groups, organizations and agencies currently working with alcoholism and drug abuse problems in Eastern Montana for the specific purpose of forming a unified, coordinated system of providing prevention, treatment and rehabilitation services. This group will direct its efforts towards identifying the appropriate organization or agency responsible for multi-county coordination of alcoholism/drug abuse services. The initial meeting will take place no later than August 1, 1975. The following are priorities the Planning Committee felt the coordinating body should deal with:

1) Establish Group Homes

Group homes were one alternative listed in the Alcohol/Drug Abuse section to provide intermediate services for its residents. The Areawide will work with the coordinating body discussed above to help establish this method of providing intermediate care. Efforts towards achieving this goal should begin immediately.

2) Upgrade and Coordinate Emergency Services

Alcoholism emergency services and detoxification at all Eastern Montana hospitals should be correlated with available alcoholism counseling and referral services, and a total treatment plan for each patient should be developed prior to his release. This plan should include physical, psychological and social evaluations and recommendations, thus requiring the involvement of other appropriate service providers in treatment.

3) Coordinate with Efforts of the Mental Health Centers

There should be at least one trained alcoholism/drugs counselor assigned to each Mental Health Center and local area office. Sources of funding will be explored at the local, State and Federal levels. Prevention of alcoholism and drug abuse will be a major goal of the Eastern Montana Areawide CHP Agency and will be covered in the community education program.

4. Mental Health

a. Assist in Unifying Eastern Montana Counties

The Areawide CHP Agency will attempt to join together representatives from the Regional Mental Health Center and County Commmissioners from McCone, Richland, Wibaux and Carter counties for the specific purpose of discussing their respective counties non-participation in the Mental Health Program. This meeting will take place no later than September 1, 1975. All counties should assess their need for mental health services; thus the Areawide CHP Agency, along with the Regional Mental Health personnel will help them perform this function.

b. Correct Misconceptions

The community education program discussed previously will explain the Regional Mental Health program as well as attempt to correct some of the misconceptions people have regarding psychological problems and disorders. The Regional Mental Health Center will cooperate in the discussion on mental health in the educational program.

c. Establish Crisis Line

A 24-hour crisis line is needed at Glasgow. Presently Glasgow has only a weekend, independently operated crisis line. Establishment of an areawide crisis line should be investigated.

d. Support the Six Basic Services

The six basic services as outlined by Federal guidelines are: inpatient, outpatient, emergency, partial hospitalization, consultation and public education. All six services should be available at the three district office locations. Partial hospitalization is not offered at the Glasgow or Glendive locations. The Areawide CHP Agency will cooperate with the Regional Mental Health program in their attempts to provide these six basic services in each district.

E. Future Planning

1. Collect and Revise Data

The Areawide CHP staff will continue to update and revise the Manpower, Facilities and Services data. The State CHP Agency will provide an additional resource for data collection.

2. Update Plan

The procedure for updating this Plan will be much the same as was used in its initial development. Any revision or update will be presented to the Health Planning and Coordinating Committee for review and approval. It will then be presented to the Executive Board for final approval and incorporated into the Plan document.

3. Investigate New Areas

The increasingly stringent State and Federal regulations make it difficult for health facilities to continue to operate. This is especially true for the small rural hospitals prevalent in Eastern Montana, who feel they are being squeezed out of existence. The trend is accelerating in response to increasing demands for cost containment and efficiency, coupled with tougher regulations concerning required equipment, manpower and reports.

To explore the negative impact of quality assurance on small rural facilities in Eastern Montana will be a task of the Areawide CHP Agency in the future.

4. Submit Quarterly Implementation Reports

Implementation reports will be presented to the Health Planning and Coordinating Committee on a quarterly basis. These reports will present complete and concise evidence of the Agency's progress towards meeting its goals and obligations. Interim meetings may also be necessary.

5. Build Upon Existing Foundation for Future Health Planning

The future of the planning process in Eastern Montana is somewhat of a question mark at the present time due to the National Health Planning and Resources Development Act of 1974 (P.L. 93-641). The Governor recommended to the Secretary of H.E.W. that one Health Service Area (HSA) be designated for the State of Montana. It is not known at the time of publication of the Plan how this may affect future areawide planning in general, and the existence of our Agency specifically.

Regardless of what happens, this Plan will provide all interested parties with a solid foundation of health resources information about Eastern Montana with projections to 1985. The groundwork for health planning in Eastern Montana has been laid. It will be the responsibility of the Region's residents to assist in its implementation.

Appendices

APPENDIX A
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I.	Total Number:				532
II.	First Draft:			234	
A.	Providers:		204		
1.	Hospital Administrators	16			
2.	Nursing Home Administrators				
3.	Hospital Directors of Nursing	14			
4.	Nursing Home Directors of Nursing	8			
5.	Public Health Nurses	12			
6.	Physicians	72			
7.	Dentists	31			
8.	Optometrists	14			
9.	Chiropractors	11			
10.	Social and Rehabilitative Services	9			
11.	Sanitarians	5			
12.	Community Health Nurses	6			
B.	Committees		30		
1.	Health Planning & Coordinating Committee	7			
2.	District 1 - Health Facilities Committee	5			
3.	District 2 - Health Facilities Committee				
4.	District 3 - Health Facilities Committee	6			
5.	Executive Board	6			
III.	Second Draft:			298	
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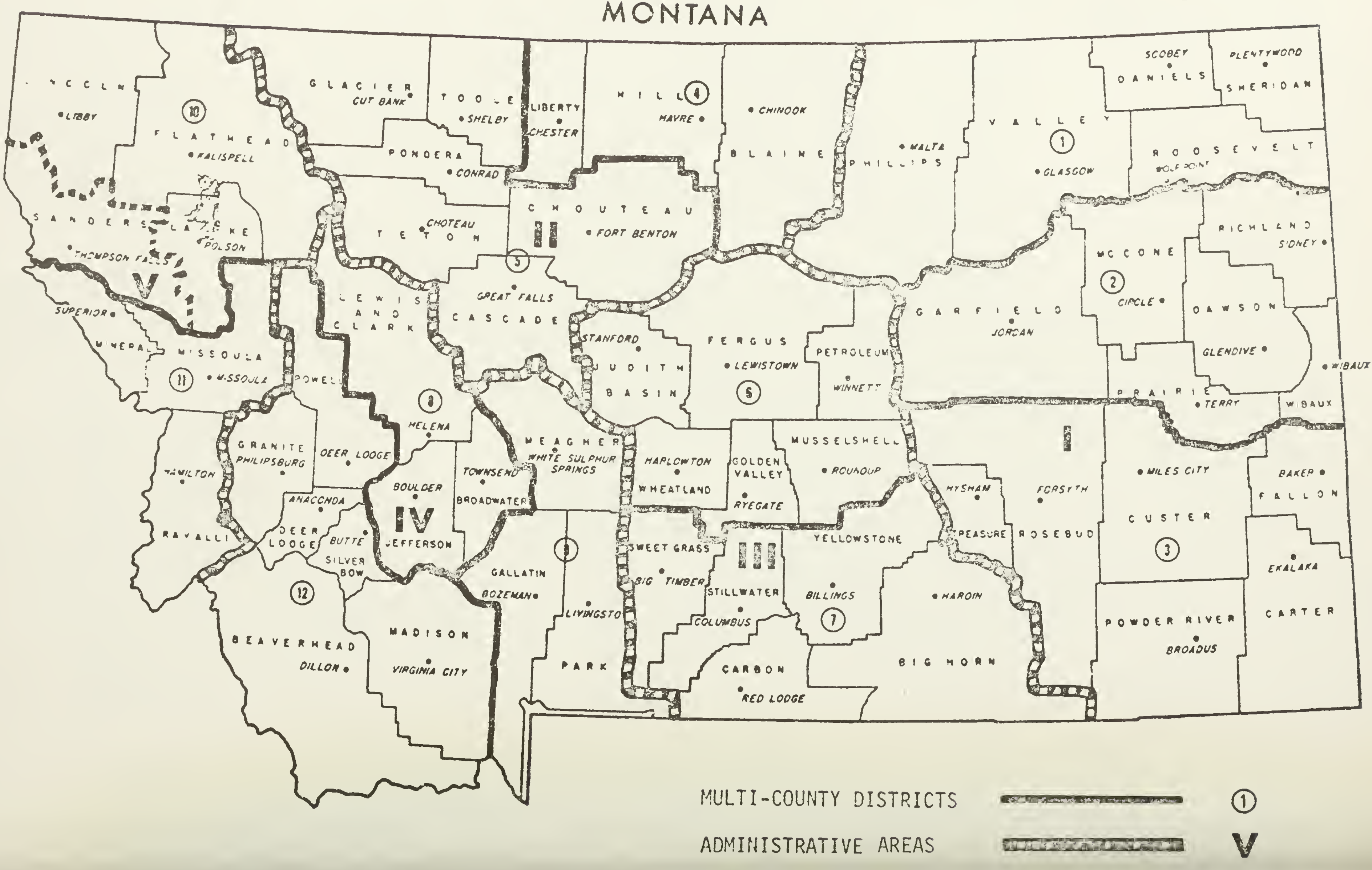
B.	Committees		30		
C.	Consumers		91		
1.	Libraries	25			
2.	County Commissioners	17			
3.	City Halls	34			
4.	County Agents	15			
IV.	Letters telling of the availability of the draft copies			222	
A.	Superintendents of Schools		17		
B.	Senior Citizen Groups		16		
C.	Councils on Aging		17		
D.	Chambers of Commerce		21		
E.	Service Clubs, etc.		151		

APPENDIX B

MONTANA



APPENDIX C
INDIANS AND HEALTH CARE

There are three Indian reservations which affect Eastern Montana. Fort Peck Reservation covers parts of Valley, Daniels, Sheridan and Roosevelt Counties, Northern Cheyenne Reservation covers a section of Rosebud County, and Fort Belknap Reservation crosses into a small portion of Phillips County. The Indian population on reservations is provided health services through the Public Health Service (PHS), financed and administered by the Federal Government.

For planning purposes, health facility and health manpower data regarding Public Health Service were excluded. But, for informational purposes, a brief discussion of the reservation health resources from the Montana State Plan for Health follows.

Fort Peck Reservation

Indians on the Fort Peck Reservation are provided medical care by the Public Health Service in diverse ways. Out-patient medical and dental services are provided directly by the Public Health Service at its facilities in Poplar and Wolf Point. The Health Center in Poplar was originally constructed as a hospital and was built in various stages starting in 1916. The building was turned over to the Public Health Service from the Bureau of Indian Affairs when the Public Health Service assumed the medical responsibility for the Indian people in 1955. The building, as a hospital, was remodeled in 1958 and was later remodeled again and converted from a hospital to a health center in 1961.

The main floor has four medical examining rooms, an emergency room, an x-ray and general medical laboratory, a pharmacy, nurses' station, sterilizing and medical supply room, medical records room, general and dental waiting rooms, two dental operatories, office space for the doctors, dentist, and administrative and clerical personnel.

The Health Center in Wolf Point was constructed by the Plant Design and Construction Branch of the Bureau of Indian Affairs in 1965 and turned over to the Public Health Service in 1966. The first floor space consists of 732 usable net square feet and has two examining rooms, a general waiting room, a small medical records office, and a combined doctors' and nurses' office. The small laboratory and prepackaged drug room located in the building are stocked from the Poplar Health Center.

Inpatient services are provided by contractual arrangement at the Community Hospital, Poplar; Trinity Hospital, Wolf Point; and other hospitals in Great Falls, and Billings, Montana; Williston and Minot, North Dakota; and Seattle, Washington. Tuberculosis patients are referred to the PHS Indian Hospital in Rapid City, South Dakota for inpatient treatment.

The dental facilities at the PHS Health Center in Poplar consist of three fully equipped dental operatories, dark room, laboratory, office space and waiting room. The present dental staff consists of one dental officer and two dental assistants.

The physicians on the reservation, in addition to the Public Health Sevvice physicians, include a general practitioner in Poplar and a board certified surgeon and three general practitioners in Wolf Point. There is an obstetrician and radiologist in Williston, North Dakota. If consultation is needed in any of the various specialties, patients are referred to the neighboring cities, all of which are anywhere from 100 to 300 miles away. If a patient is referred to one of these other resources, and does not have the transportation or funds to get there, the Health Center will provide either the transportation or a train or bus ticket.

During FY 1972, there were 27,263 total out-patient visits at the Fort Peck Service Unit. The Poplar Health Center accounted for 17,510 of these visits and the Wolf Point Health Center and health locations for 9,582. The remaining out-patient visits (531) were at night and weekends at the Community Hospital in Poplar after the Health Centers were closed.

Northern Cheyenne Reservation

Most of the people of the reservation go to the PHS Indian Health Center in Lame Deer for their health needs. They are referred to the PHS Indian Hospital at Crow Agency for in-patient services, and to contract facilities, or state agencies, whenever necessary.

There are private physicians and private hospitals in Forsyth, 58 miles away; Harden, 54 miles away; and Billings, 105 miles away.

Outpatient and special clinic services are provided by a staff consisting of two physicians, one registered nurse, one licensed practical nurse, one psychiatric nurse, one pharmacist, one dentist, two dental assistants, one medical records clerk, one medical and radiology technician, and one clerk-stenographer. The clinic building itself is divided into floor levels. The top floor is occupied by the dental staff and psychiatric nurse, and is divided into a waiting room and classroom, dental supplies storeroom, three offices and the actual dental clinic with three dental chairs. The middle floor serves as the work area for the remainder of the general medical staff. It contains three examinining rooms, one emergency room, nurse's workroom, a laboratory and an x-ray department, pharmacy, health records, and a waiting room.

During fiscal year 1972, there were 18,843 out-patient visits at the Health Center. Dental services provided 1,497 examinations and a total of 6,317 services.

Fort Belknap Indiah Reservation

The Public Health Service operates a 22-bed hospital at the Fort Belknap Agency. Both out-patient and in-patient services, as well as dental care are provided. It also operates an out-patient clinic at Hays two days per week.

Special medical problems are referred to physicians and hospitals in Havre, Billings and Great Falls, Montana, and Seattle, Washington.

There is also a Community Health Service's staff at the hospital consisting of public health nurses and a sanitarian technician.

Source: Montana State Plan for Health, State Comprehensive Health Planning Agency, 1974.

APPENDIX D
VETERAN'S ADMINISTRATION HOPSITAL

The Veteran's Administration Hospital in Miles City contains a total of 96 beds, 20 of which are used for long term care. 1974 operating data for the facility indicate that there were 1,706 admissions with an average length of stay of 16.3 days. A total of 27,740 patient days were accumulated. The hospital's occupancy rate for this period was 79.2%.

Seven physicians have been assigned to the V.A. Hospital. On staff also are 31 RN's, four LPN's and 12 nurses aides.

The Nursing Home Care Unit has been in operation for two years and is temporarily situated on the third floor of the V.A. Hospital. The unit houses 20 male long term care patients having an average age of 74.4 years. Five of the patients are in skilled beds, 8 in intermediate A beds and 7 in intermediate B beds. The average length of stay is 16.25 months.

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